The Development of Islamic-Based Nursing Support Model to Enhance TB Treatment Completion in Drug Users after Release from a Male Prison in Indonesia

Megah Andriany

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Nursing (International Program)

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ABSTRACT

Post-release TB completion in prisoners with drug users and TB is a big issue due to difficulties in life after release from the prison. This study aimed to know participants' perceptions about existing situation and expectation of post-release TB treatment completion of prisoners with drug abuse and nurse's roles in supporting this and to develop an Islamic-based nursing support model for successful TB treatment completion in drug users after release from a male prison in Indonesia.

Participatory action research is used by involving ten prisoners with TB, a physician, two correctional nurses, a NGO person, two associate prisoners in TB program, an Islamic leader, an associate prisoner in Islamic education program, and two family members. The study was conducted in a prison and in the community. Data were collected in three cycles based on the Kemmis and McTaggart method using various methods including interviews, dialogues, focus group discussions, and observations. The data were gathered through several guidelines in performing the data collection methods. The researcher applied the Miles and Huberman's qualitative data analysis framework consisting of data reduction, data display and conclusion

drawing/verification. The researcher employed several strategies in enhancing credibility, confirmability, transferability, and dependability of the study.

The model was developed through the stages of reconnaissance, planning, enacting and observing, reflecting, and replanning. The emerged themes in the reconnaissance phase were categorized in two groups including situations and expectation of post-release TB care based on perspectives of providers and patients. The situations from providers' views were: (1) losing contact with patients at the point of release due to unpredictable date of release; (2) rarely receiving reports back from the health center due to failure in the patient follow-up; (3) lack of employing any provider guidelines to facilitate TB completion; (4) perceiving post-release TB care is not the prison authority; (5) prison officer uniform obscures nurse's identity; and (6) separation of TB care and Islamic services.

The situations based on patients' perceptions were: (1) feeling being isolated by others; (2) perception of getting TB due to prison life and no need for medication after release; and (3) fear to meet people after release. The participants' expectations included: (1) expecting providers to supervise the medications in the pre- and post-release period; and (2) desire to recover from TB and looking forward to healthy living after release.

The model development consisted of three cycles including: (1) building nurse-prisoner trust using Islamic reflection and completing the existing pre- and post-release TB care procedures; (2) inviting patients to Allah's path; and (3) engaging related parties. The building nurse-prisoner trust using Islamic reflection consisted of two activities which are re-orientating Islamic values to emerge an

awareness of being a nurse and identifying the gap of Muslim nurses' attitudes and behaviors. The themes of completing the existing pre- and post-release TB care procedures involves clarifying job description of TB care providers, identifying release date and post-release information, and modifying wrong perception about TB and its treatment.

Activities to invite patients to Allah's path consisted of stimulating the patients with the issue of discontinuation TB consumption and motivating patients to return to Allah's path. The last support was engaging related parties including: (1) involving family to confirm post-release information before prisoners' release and to provide support to patients in the post-release period; (2) collaborating with some divisions in the prison; and (3) directly communicating with the referral services in the community.

The outcomes of the model were categorized in two groups at the individual and system levels. The transformation in individual level include the return of a nurse's identity, Islamic belief using in life, increase patient's knowledge about TB and its treatment, and family supports for TB client. The changes at the system level involve the professional relationship between nurses and prisoners, the clear TB nurse's job description in the prison, the health education method modification, the valid post-release information, two-way communication between providers in the prison with the referral services, and integrated Islamic-based TB care. Finally, the major outcome is the increase of post-release TB treatment completion rates.

Keywords: after release, Islam, nursing support, TB treatment completion

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CHAPTER 1

INTRODUCTION

1. Background and Significance of the Problem

Tuberculosis (TB) is a worldwide health problem. Globally, the incidence of TB cases was around 10.4 million and there were around 480,000 new cases of multidrug-resistant TB (MDR-TB) in 2015. This disease burdens many countries including Indonesia which is the second highest burdened country with 11.27% of the total TB incidence worldwide (World Health Organization, 2016).

Many high-risk groups of TB persons need serious attention including prisoners and intravenous drug users or IDUs (Gasparini, Duradno, Sticchi, Lai, & Crovari, 2002). The prevalence rates of TB and MDR-TB in prisons are tremendously higher than in the general community. These high rates and its fatality lead to the elevation of TB mortality (Dara, Grzemska, Kimerling, Reyes, & Zagorskiy, 2009; O'Grady et al., 2011). In Indonesian correctional facilities, TB is one of the top four diseases and is ranked second in mortality rate (Directorate General of Correction of Ministry of Law and Human Rights of Republic of Indonesia, 2015).

Another at risk-TB population is drug users who are common in prisons. Around 50% of prisoners are drug users and 44% of them are TB infected (Drobniewski et al., 2005; Martín, Caylà, Bolea, & Castilla, 2000; WHO, 2007). In Indonesia, around 70% of prisoners are drug abusers (Allen et al., 2015) and 7.1% of the inmates are HIV infected (UNOCD, 2018). Studies proved that this group demonstrates high numbers of LTBI and TB which are associated with an impaired immune system and epidemiological factors involving tobacco consumption, homelessness, and imprisonment. Consequently, drug

abusers are more likely to be infectious, take a longer period to attain a negative culture, and to be at higher risk of mortality (Deiss, Rodwell, & Garfein, 2009).

TB treatment completion is crucial to reduce its transmission in the correctional facilities and to the community after an infected prisoner's release. This can prevent the development of MDR-TB (Kim & Crittenden, 2007). In fact, the continuation of treatment after release is poor for both TB and latent TB infection (LTBI) cases. Bock, Reeves, Lamarre, and Devoe (1998) reported that 38% of TB patients were lost to follow-up before the completion of therapy. Only 3.2% of inmates with latent TB had a follow-up visit within a month of their release (Tulsky et al., 1998). Moreover, around 26.3% of former inmates with TB presented themselves to a drug store to get anti tuberculosis medicine (Fry et al., 2005).

Released inmates tend to be "defaulters" rather than "transfer out". This is caused by program factors (such as inadequate external networking with primary health centers, insufficient recording and monitoring, and the movement of prisoners with TB to the community) and several risky behaviors of released inmates such as not providing a correct address to be followed up (Directorate General of Correction of Indonesian Ministry of Law and Human Rights, 2012; Kim & Crittenden, 2007; Reyes, 2007). Socioeconomic issues such as stigmatization as TB patients, former prisoners, and drug users; having a minority status; and unstable living conditions and environment are related to oppressed conditions contributing to interrupted TB therapy completion as well (Curtis et al., 1994; Fry et al., 2005; Mehta et al., 2005; Nolan et al., 1997; Perlman et al., 1995).

Healthcare providers' antagonist attitudes become a concern as well (Curtis et al., 1994). Drug users consider that the providers are discriminative, insulting, and unresponsive to their needs, and provide irrespective service to them (Edlin et al., 2005).

These marginal situations make drug users lack the ability to comply with treatment and they may not provide a correct address to be followed up (Drobniewski et al., 2005). Substance abusers are less likely to stick with providers' suggestions, appointments, and therapy. Thus, this results in mistrust and inadequate collaboration between clients and providers (Edlin et al., 2005; Mehta et al., 2005). Hasnain (2005) recommends a religious integrated HIV prevention and treatment program for drug users in Muslim countries to deal with several sociocultural issues. This can be relevant in the context of prisoners with TB as well.

Religiosity impacts on individual psychological conditions. While people with negative religious coping (such as avoiding spiritual activities and blaming God for personal challenges) tend to have a higher degree of depressive symptoms, religiosity may decrease the susceptibility for these symptoms to appear (Smith, McCullough, & Poll, 2003). Personal religiousness is positively correlated with psychological adjustment and social self-esteem (Gebauer, Sedikides, & Neberich, 2012). Regarding stigma and discrimination, a religious prime diminishes the hostility-stimulating effects due to social exclusion (Aydin, Fischer, & Frey, 2010).

Islamic Sufism is considered an effective approach used in transforming a drug user's behavior (Adam, Ahmad, & Fatah, 2011; Aisyah & Norizan, 2013). In the prison setting, Tehrani (2012) has developed an integrated prison reform program emphasizing on building a new-self applying this approach and implementing planning and sets of religious values. Kadir and Ali (2012) report that self-reflection can increase self-awareness, happiness, and social interactions in women experiencing difficulties and stigma due to marital failure whereas the participant used it. This approach might be applied to ensure TB treatment completion in prisoners with drug abuse as well as

reforming their insight into a new level of self-awareness to be more responsible toward their treatment.

Nurses have a comprehensive role for organizing TB treatment administration in correctional facilities and after a prisoner's release (Dara et al., 2009). A nurse also has to interact with various community organizations and resources to guarantee uninterrupted TB therapy (Conklin, Lincoln, Wilson, & Gramarossa, 2002). Since spirituality is crucial to enhance patient endurance in dealing with various barriers, the nurse should integrate spiritual care in the overall attributes of nursing care. The nurse has a responsibility to be sensitive to patients' spiritual needs as an aspect of holistic health care. Nurses play roles in assessing spiritual needs and providing spiritual care as a part of a nursing intervention (O'Brien, 2011).

Previous studies describe interventions to achieve post-release TB/LTBI treatment success. Directly observed preventive therapy (DOPT) for LTBI significantly provides more satisfying results towards treatment completion rather than self-supervised therapy. In the DOPT study, 40% of the respondents were lost to follow up and the other 60% completed the therapy (Nolan, Roll, Goldberg, & Elarth, 1997). Kim (2007) also shows that Directly Observed Therapy (DOT) can enhance TB treatment completion after release, however, the success rate was only 38.5%.

Besides DOT, education with incentives can enhance follow up for latent TB treatment adherence although this has been shown to be insignificant (White et al., 2002). Moreover, former inmates with a homeless or alcoholic status finished therapy only if they were allowed to enter socio-sanitary centers and there was adequate co-ordination among intra correctional institutions and extra institution programs (Marco et al., 1998). Monetary incentives and good supervision are also considered of benefit for ensuring TB treatment in drug users (Chaisson et al., 2001; Malotte, Hollingshead, & Larro, 2001).

Previous studies provided combination interventions so the effect cannot be examined independently (European Center for Disease Prevention and Control, 2017), and there is limited study in the development of a model to promote TB treatment completion for prisoners with drug abuse issues. Therefore, it requires a study to solve the situation.

2. Objective of the Study

The study aims to develop an Islamic-based nursing support model to enhance TB treatment completion in drug users after release from a male prison in Indonesia.

3. Research Question

The research question in this study is "What is an appropriate Islamic-based nursing support model to enhance TB treatment completion in drug users after release from a male prison in Indonesia?"

4. Conceptual Framework of the Study

The concept used in this study is based on the philosophy underpinning this study which is critical theory. The proponents of Freire (2005) believe that persons' consciousness is not ideologically true, thus it is a false consciousness that can consist of ideas, doubts, values, and hopelessness. This false consciousness, mostly in the oppressed, occurs because of misinterpretation or irrationality experienced through the internalizing imagination of the oppression and as such adopting these guidelines of thinking finally produces dehumanization.

The authentic view of the world and self are perceived as true beliefs and attitudes that can be achieved from the socialization process through conversations with others regarding their experiences and internalization from self-reflection ("reflectively acceptable"). The processes let individuals being aware several unconscious influencing factors in the present conditions. The appropriate teaching method for changing a false consciousness is a dialogical and a problem-posing educational method as in this process people can share experiences and enhance their curiosity in searching the truth. After recognizing the causes and phenomena of oppressed conditions, this will bring forward a new point of view that will be accepted as "an authentic truth". A great effort to regain the oppress' humanity requires a power and an obligatory engagement. This necessitates freedom to free their fear from oppression. Thus, empowerment is essential (Freire, 2005; Geuss, 1981).

Islamic Sufism (*tasawwuf*) is one of the disciplines in Islam aiming to reform an individual's life (religiosity, behavior, and experience) in balancing faith and actions (Keshavarzi & Haque, 2013). According to this discipline, Muslims must attempt to achieve full self-awareness by liberating human characteristics in order to gain divine attributes with proper behavior. All of these efforts are directed toward a Muslim's life goal i.e. returning to God (Chittick, 2001, 2011; Gulen, 2014; Huda, 2004).

Soul purification (*tazkiyat al-nafs*) is the main method in this field which means a restructuring of the soul and its cleansing through valuable information, conducting good deeds, and performing what has been directed and abstaining from what has been prohibited. It is believed by those who follow soul purification that this method can transform the state of the soul that commands (to the evil) to the higher level i.e. the self-reproaching soul and the tranquil soul as the highest state of spirituality. Besides the remembrance of God, this can be done by discussing an individual's emotions and

reactions then adjusting and modifying them (Picken, 2011). This concept is congruent with critical theory in that it tries to raise individuals' consciousness and bring them into true beliefs.

Another Islamic concept relevant in this study is the invitation to Allah's path (*da'wah*). This activity is described as corresponding and enlightening the right way, directing and presenting the path to the faith of Islam consisting of all forms of communications to teach, spread, convey and persuade, and notify others of the religion (Bala, 2015; Racius, 2004). Every Muslim has an noble obligation to conduct this activity according to his/her capacity (Racius, 2004; Rofi'i, 2008; Tuasikal, 2012). This also become a task for Muslim nurses who should integrate Islamic values in their practice to achieve nursing care goals.

Another concept used in this study is nursing support. Support is defined as the provision of tangible and intangible matters can be provided in several forms (Stoltz, Andersson, & Willman, 2007). Emotional support is a perception of support delivered to others to believe they are nurtured, loved, appreciated, and that they belong to a system of communication, and reciprocal responsibility. Instrumental assistance refers to helping persons in order to improve their capability to identify their needs and this involves the availability of other kinds of supports to deal with difficulties. Instrumental assistance may consist of financial and task assistance, and direct interventions to perform particular behaviors. Informational support indicates suggestion, guidance, and knowledge facilitating an individual's cognitive and behavioral coping. Lastly, appraisal support means communication to improve individuals' self-evaluation. This also can result in the improvement of coping and self-esteem (Murray, 2000).

The model effects on both nurses and patients. Cognitively, the outcome can be shown from the modification of misinterpretation and false consciousness (Picken, 2011).

Other outcomes are the improvement in the acceptance of conditions, understanding, adjustment, communication, steadiness and recovery, growth, and quality of life. The nursing support also impacts on the reduction of institutionalization, anxiety, solitude, irritation, burden and emotional discomfort (Mohammadipour, Atashzadeh-Shoorideh, Parvizy, & Hosseini, 2017; Murray, 2000).

5. Definition of Terms

The Islamic-based nursing support model for TB completion after release refers to a model used by nurses to help patients in modifying the perspectives of prisoners with TB and drug abuse from their perceived lack of power due to a false consciousness, as well as helping prisoners to use their potential in completing TB treatment during the post-detention period by practicing Islamic self-reflection to modify prisoners' perceptions to conduct appropriate behaviors including adhering to TB treatment until completed. The model will consist of processes, contents, and roles of nurses.

TB treatment completion is considered as a routine TB drug consumption until the sputum test confirmation one month before treatment completion (in the fifth or sixth month of the therapy period).

6. Significance of the Study

Nurses in correctional facilities play important roles in preparing prisoners with TB to continue their treatment after release. The Islamic approach is significantly relevant to Indonesia as a country with the biggest Muslim population in the world (reflecting prisoner population in this country. The research will help the Indonesian government in

providing a model or framework to help prisoners to complete their TB therapy after release from correctional facilities. The model will be useful to develop programs or interventions based on effective problem solving towards several barriers to ensure the patients stay in TB therapy until the finish. Bausano et al. (2010), from a systematic review, concluded that effective TB control in correctional settings can protect inmates and staff from TB infection, thus considerably decreasing the national burden due to TB. Moreover, this will improve the prevention of TB transmission to the community and the development of MDR-TB in this area and facilitate the government to achieve the indicator targets of a National TB Program (NTP) and SDGs related to TB.

7. Summary

TB occurs in many populations including prisoners and drug users as a population at risk. There are many factors inhibiting prisoners with drug abuse to accomplish TB treatment particularly when they are released from prisons. Former prisoners carry a greater risk to spread the disease to the community. There are guidelines and interventions trying to ensure uninterrupted TB treatment after prison release. However, many released prisoners do not adhere to the treatment critically because of a false consciousness. Islamic self-reflection is an approach to enhance prisoners' self-awareness in order to perform proper health behaviors particularly in TB treatment after their release.

CHAPTER 2

LITERATURE REVIEW

This chapter will review the literature regarding TB conditions in correctional settings and alternatives to modify the conditions. The study consists of five sections involving:

1. Male Prisoners' Life
   - 1.1 Physical health
   - 1.2 Psychological conditions
   - 1.3 Socio-economic life
   - 1.4 Spiritual life
2. TB Care in Correctional Settings and after Release for Drug Users
   - 2.1 TB and LTBI
   - 2.2 Risk for contracting TB in prisoners and drug users
   - 2.3 TB Program for drug users
   - 2.4 Pre- and post-release TB care
3. Nursing Supports for Prisoners with TB and Drug Abuse
   - 3.1 Psycho-educational therapies
   - 3.2 Referral and linkage to resources
   - 3.3 Spiritual support
4. Islamic Sufism for Raising Consciousness to Enhance TB Treatment Completion after Release
   - 4.1 Islamic Sufism and change in Islam
   - 4.2 Application of Paulo Freire's method
5. Participatory action research (PAR)

5.1 Phases of PAR

5.2 Factors influencing PAR process

6. Summary

1. Male Prisoners' Life

Worldwide the majority of prison residents are male in which females are less than 5% of this total population (Dara et al., 2009). Thus, this group requires more attention in regards to TB treatment both in correctional institutions and after release. These following descriptions provide explanations regarding the life of inmates in general, and particularly males in regards to the physical, psychological, and socioeconomic dimensions. These aspects are related to TB and treatment completion after prisoner release.

1.1. Physical health

Prisoners are carry higher risk towards health problem incidences. The major health concerns among inmates are infectious diseases and illicit drug use. These are caused by their lifestyles (i.e. drug abuse, unsafe sex behavior and tattooing), unhealthy environments i.e. poor ventilation and overcrowded population, and having a low socio-economic status (AIDS Research Institute, 2000; Department of Health and Human Services Centers for Disease Control and Prevention [DHHS CDC], 2006; Kinsella, 2004; Petersilia, 2000; WHO, 2007). Moreover, offenders are vulnerable in disease transmission particularly for tuberculosis, hepatitis, and HIV and this condition will put the community at risk as well (McDonald, 1999 as cited in Petersilia, 2000).

The risk of getting TB in prisons is associated with over population in this setting. Also those prisoners who have a greater risk of TB infection and TB disease are those who suffer from alcoholism or substance abuse, the homeless, mentally ill persons, recidivists, and illegal immigrants. Disease transmission in this area may be due to the overloaded number of residents, a delay in case detection and a lack of infectious disease treatment, high inmate movements, and an inadequate TB eradication program. Lastly, the risk of quick latent TB infection development to TB disease in a current infection or the reactivation of a latent TB infection is increased by several pathologic conditions, especially in the presence of HIV infection, intravenous drug use, and inadequate nutrition (Baussano et al., 2010).

Regarding chemical dependency, Fazel, Bains, and Doll (2006) found that 18 to 30% of male prisoners had dependency on alcohol use and 10 to 40% of them had dependency on drug use before they were put into custody. This number was higher than the general population. Moreover, most male inmates reported massive histories of substance usage before their detention and almost one third continued with substance usage after their release (Visher, Yahner, & La Vigne, 2010). Moreover, around 50% of prisoners were found to be drug users (Drobniewski et al., 2005; Martín et al., 2000; WHO, 2007). Many of the male prisoners with a positive HIV status died because of an overdose before developing AIDS and some of these deaths happened two weeks post detention (Seamen, Brettle, & Gore, 1998).

In addition, this group requires special attention because of particular barriers to TB diagnosis and control (Deiss et al., 2009). Moreover, 44% of prisoners were found to be infected by *Mycobacterium tuberculosis* (Martín et al., 2000). Many studies proved that prisoners demonstrate high numbers of TB disease outbreaks. The phenomenon is associated with a physiological feature (an impaired immune system as the result of the

effects of drug use) and epidemiological factors involving tobacco consumption, homelessness, and imprisonment. These result in various conditions including drug abusers are more likely to be infectious, take a longer period to attain negative cultures, and to be at higher risk of mortality (Deiss et al., 2009).

In responding to these health problems, correctional institutions do not provide qualified healthcare services (DHHS CDC, 2006). Even in prisons, inmates can access healthcare, however they have difficulties to gain healthcare after their release (Petersilia, 2000).

TB treatment interruption is a crucial issue which is caused by numerous challenges faced by ex-offenders with TB. The majority of released prisoners with TB must deal with several issues involving financial difficulties, homelessness, substance abuse, stigmatization, a lack of awareness toward health prevention, unemployment, impediment in tolerating TB medication with co-morbid diseases like HIV and hepatitis (Fry et al., 2005; Nolan et al., 1997).

Substance abuse is one of the greatest challenges in TB treatment completion. Addiction influences healthcare, treatment adherence, housing opportunities, social interaction, and employment. Healthcare providers who are not trained to communicate with prisoners with substance abuse issues' will have difficulties to ensure therapy completion (DHHS CDC, 2006).

1.2. Psychological conditions

Mostly, prisoners come from backgrounds in which individuals have a lack of positive reinforcements such as love and care. Thus, they lack empathy to others, have never been understood or cared about others, and are unable to learn to be aware about the need to care about others. These situations lead them to crimes (Tehrani, 1996).

Incarceration can trigger serious mental problems because of an isolation and loss of touch from support systems in an overcrowded facility. Generally, prisoners feel a loss of autonomy, lonely, helpless in dealing with a difficult life, do not have initiatives, feel guilty, find life meaningless, suffer from low self-esteem, feel underestimated, blame life, suffer from alienation, and negative thinking regarding their future. These situations can lead to depression and anxiety (Liebling, 1999 as cited in Petersilia, 2000; Nur & Shanti, 2013; Tehrani, 1996; WHO, 2007).

Another concern regarding male inmates is that most men have particular patterns of behavior based on gender. Young adults particularly men are less likely to seek assistance compared to young women, even when they are psychologically suffering (Biddle, Gunnell, Sharp, & Donovan, 2004). This is consistent with Howerton, Campbell, Hess, Owens, and Aitken (2007) who qualitatively investigated male prisoners' behavior in seeking help. They found that prisoners would not search assistance in cases of psychological distress and that they worried in case they were diagnosed as a mentally ill person. Prisoners will go to general practitioner if having prior positive experiences. Petersilia (2000) states that mentally ill individuals fail to access mental-healthcare services due to the fear of being institutionalized, or because they refuse their situations, or have a mistrust of the mental health system.

The behaviors outlined in the previous paragraph are associated with an oppressed phenomenon. Prisoners are frequently seen as "slaves of the state" (Anno, 2001). The stigma of criminalization results in exclusion from social groups. Socioeconomic issues such as stigmatization as TB patients, former prisoners, and drug users; having a minority status; and unstable living conditions and environment are associated with oppressed conditions of former prisoners and drug users which contribute to TB treatment completion (Curtis et al., 1994; Fry et al., 2005; Mehta et al., 2005; Nolan et al., 1997;

Perlman et al., 1995). Additionally, healthcare providers' antagonist attitudes are a concern in regards to this issue as well (Curtis et al., 1994). Drug abusers consider that healthcare providers deliver discriminative and insulting care and are unresponsive to their needs, and irrespective to them (Edlin et al., 2005).

1.3. Socio-economic life

Generally, inmates come from the low socio-economic area of a community and can be categorized as uneducated and unskilled individuals (DHHS CDC, 2006; Petersilia, 2000). This characteristic influences the socio-economic life of prisoners.

1.3.1. Economic life

The majority of released prisoners have had to deal with debt and difficulties in finding a job after their release because of their lack of identification and their criminal track record. Mainly, male parolees are released without any savings, have less opportunity to get jobs, and tend to be unemployed. Many prisoners also declared that they were occupied for several months since release and most of them reported that if potential employers know about their criminal record then they are likely to be unenthusiastic in employing an ex-prisoner. This leads to joblessness (Fry et al., 2005; Hagan & Dinovitzer, 1999; Petersilia, 2000; Visher et al., 2010), which leads to low earnings for household life and impacts on young men's wellbeing and dependency (Hagan & Dinovitzer, 1999). Unemployment including losing a job can result in substance abuse which in turn may lead to family violence (Petersilia, 2000).

1.3.2. Social life

Social aspects in prisoners' lives consist of family life and social environment descriptions. There are numerous concerns in family life including financial strain, psychological challenges, children caring displacement, and social disintegration which contribute to low self-esteem and result in child abuse and neglect. Consequently, this leads to behavior deviances and crimes in children (Hagan & Dinovitzer, 1999; Petersilia, 2000).

Former prisoners show different social adaptation in their society depending on the type of crime they committed and their residential environments. For instance, an ex-prisoner with a murder case may try to bring community trust back by performing good attitudes to show that he is really changed. On the other hand, ex-prisoners with illicit drug case or recidivists will be dominant in interacting with people outside of their residence (Gusef, 2011).

Furthermore, most of the inmates in United States who come from an inner-city society live as vagrants, and thus will return to that neighborhood (Fry et al., 2005; Petersilia, 2000). Some of them can easily find residence, but some have problems in seeking a house for several months once released from prison. Those inmates had different thought about duration of leaving in the present residence. Many of them expected to live only for several months or less, while the others wanted to live for only a year and the rest intended to settle for more than 1 year. Therefore, residential mobility in this group relatively increased over time. Ex-prisoners can live in one or more locations after release (Visher et al., 2010).

Instable housing and poverty have an effect on crime intensity that influences norm alterations and foster chaos, rudeness, and violence as well (Wilson, 1989). It is also related to prisoners' social environment. Prisoners must deal with intimidations and

violence (WHO, 2007). Inmates tend to be involved in this action to find a secure environment by seeking protection and relationships from those threats. This leads to gang activities which are a particular issue affecting prisoners during their time in prison as well as after their release. Gang conflict has occurred in prisons may continue after incarceration particularly for youths. If this still happens, it will provide negative impacts on returning inmates and the general community. People in general tend to be in fear to go out and interact with ex-prisoners involved in gangs. This results in a lack of community solidity and social disorganization (Petersilia, 2000).

Recidivism is also an issue that has accompanied former prisoners. Many male prisoners experience reoffending in the same year they are released because of various criminal activities (Visher et al., 2010). The majority of parolees will be arrested within 3 years and they lead to other types of offense and aggression (Petersilia, 2000). The transition and mobility in residences influence a long term therapy completeness such as in the TB treatment. Former prisoners with TB who are re-arrested are lost in communication with healthcare providers to continue their therapy. An interrupted treatment results in a great risk of resistances.

The majority of prisoners have a lack of a support system both pre or after release from prisons and many of them conveyed that their family members also were involved in drug abuse or/and crime. Prisoners' coping behaviors in prisons are influenced by social supports from their family and their environments such as other inmates and correctional staff. Family members also play important roles in supporting male prisoners as a main housing resource, who provide ready money, food, and emotional encouragement. This support facilitates prisoners in feeling calm, cared, loved, and helps to raise levels of self-confidence. (Nur & Shanti, 2013; Petersilia, 2000; Visher et al., 2010).

1.4. Spiritual life

Most of the prisoners (82.8 %) participated in religious practices while they were in prison (Dachew, Fekadu, Kisi, Yigzaw, & Bisetegn, 2015). They are engaged in these activities for intrinsic and extrinsic aims. Intrinsically, their first reason was to provide meaning of their punishment particularly in dealing with their sense of guilt. Secondly, their purpose was atonement and forgiveness by blaming their belief and avoiding their illegal behavior. Finally, religion proposes a new life and harmony. Externally, inmates engaged in religious activities due to a number of motives. The first was to get sense of safety by escaping from other prisoners to prevent conflicts. Secondly, the religious programs frequently offered some snacks and drinks. Thirdly, some of the prisoners experienced interaction with the outside environment through this program. Lastly, prisoners felt they were broadening their social network to obtain social support that is difficult to attain in the prison environment (Maruna, Wilson, & Curran, 2011; Placer, 2009).

Correctional facilities provide several religious activities such as prayer services in worship places and religious education, and financial support. The institutions also collaborate with religious communities such as the Christian, Jewish, and Muslim communities to facilitate prisoners developing pro-social and spiritual values and skills through mentoring activities (Bright & Graham, 2000). Religious programs in correctional facilities have an effect on adaptive functions in the prison and recidivism (Clear & Sumter, 2002). Camp, Klein-Saffran, Kwon, & Joseph (2006) which suggests that religious programs encourage prisoners to make changes in their lives and look for religious sense to help make meaning in their life.

Inmates experience a personal transformation during incarceration in relation to attending a religious program while in prison. Maruna et al. (2011) described a prisoner's

spiritual change from “sinner” to true believer through five shame management functions. The first is gaining social identity by interpretive control over their life and countering stigmatization. Prisoners perceive themselves to be a better individuals and different persons to what other people thought. The second is creating meaning of their incarceration by providing positive meanings on the imprisonment such as perceiving this as God’s plan and a gift. Thirdly is the transformation for empowerment to preach and provide benefits for others. Fourthly, it is a path to forgiveness particularly for those with serious crimes. This assists them to re-gain a sense of self-worth by using the principle of equality in which every human can commit wrong doing in his/her life. Lastly, it means a dream for the future to reduce anxiety due to post-release uncertainties.

2. TB Care in Correctional Settings and after Release for Drug Users

This part explains about TB and latent tuberculosis infection, the risks for getting TB in prisoners and drug users, TB programs for drug abusers, and the post-release continuity of TB care.

2.1. TB and LTBI

TB is a communicable disease caused by *Mycobacterium* tuberculosis (Centers for Disease Control and Prevention, 2011; World Health Organization, 2011). This disease is categorized into two conditions based on patients’ symptoms including TB disease and LTBI. Patients with TB disease have active TB bacteria in their body and are infectious to others. Individuals with LTBI are infected with these bacteria but do not experience TB symptoms. This group is not infectious and cannot spread TB infection to others (Centers for Disease Control and Prevention, 2011). The scope of a TB program in every country

can be different i.e. TB control for inmates with confirmed TB or/and suspected TB and LTBI according to national policy (Dara et al., 2009).

2.2. Risk for contracting TB in prisoners and drug users

The risk of getting TB in correctional institutions is associated with the over population in this setting, and those prisoners who are at greater risk of TB infection and TB diseases are prisoners who suffer from alcoholism or substance abuse, homelessness, mental illness, are recidivists, or illegal immigrants (from high prevalence of TB. Disease transmission might be spread in this area because of overpopulation, delayed cases of detection, lack of infectious disease treatment, high inmate movements, and inadequate TB eradication. Lastly, the risk of quick LTBI development to TB disease in a current infection or the reactivation of LTBI is increased by several pathologic conditions, especially HIV infection, intravenous drug use, and inadequate nutrition (Baussano et al., 2010).

2.3. TB program for drug users

A particular population at risk of contracting TB is drug users. Many studies proved that this group demonstrates high numbers of LTBI and TB disease outbreaks. The phenomena are associated with a physiological feature (impaired immune system as the result from the effects of drug use) and epidemiological factors involving tobacco consumption, homelessness, and imprisonment. These factors result in various conditions including drug abusers are more likely to be infectious, take a longer period to attain a negative culture, and are at higher risk of mortality (Deiss et al., 2009). In addition, this group is commonly found in correctional settings. Around 50% of prisoners were drug users in Europe including Russian and Spain (Drobniewski et al., 2005; Martín et al.,

2000; World Health Organization, 2007). Moreover, 44% among prisoners with drug abuse were infected by *Mycobacterium tuberculosis* (Martín et al., 2000).

'Policy guidelines for collaborative TB and HIV services for injecting and other drug users' have been published to provide evidence based recommendations and approaches to apply them (World Health Organization et al., 2008). The Indonesian government provided detailed information regarding the national action plans of TB-HIV control and co-infection management. This includes the application of this policy in correctional facilities (Directorate General of Disease Control and Environmental Healthfulness of Indonesian Ministry of Health, 2011, 2012).

2.4. Pre- and Post-Release TB Care

The majority of (90.9%) correctional facilities in many countries have executed TB care based on WHO recommendations, 77.3% of correctional facilities have implemented DOT methodically, and overall most countries have delivered anti-TB medicines free of charge. The treatment completion average in this area differed from 0% to 100% while 50% of countries has no available information about treatment completion in both pre- and post-release periods. Seventy-two percent of post-release TB treatment for prisoners was conducted by the public health service and the remaining was provided by private practitioners, hospitals, outpatient clinics, and the prison personnel (European Center for Disease Prevention and Control, 2017).

TB treatment interruption is a crucial issue which is caused by numerous challenges faced by the ex-offenders with TB or LTBI. The majority of ex-offenders with TB or LTBI must deal with several issues involving financial difficulties, homelessness, substance abuse, stigmatization, lack of awareness toward health prevention,

unemployment, and impediment in tolerating TB medication with co-morbid diseases like HIV and hepatitis (Fry et al., 2005; Nolan et al., 1997).

DOT through treatment and continued supervision or adequate coordination can result in better adherence for prisoners after their release (Marco et al., 1998). There are several components that correctional nurses should conduct in ensuring the continuity of TB care after prison release involving partnerships between a correction facility and public health institutions, a comprehensive discharge plan, and post-detention community-based case management.

2.4.1. Collaboration between a correction facility and public health institutions

Alliance among prisons with public health services and volunteer organizations is crucial to ensure the continuity of TB care after a prisoner's release to overcome various challenges (Dara et al., 2009; DHHS CDC, 2006). In addition, each party should have clear responsibilities (Bone et al., 2000). Fry et al. (2005) emphasized the communication between correctional facilities and community public health staff with stricter tracking of patients with active TB. However, only few of correctional facilities and community public health staff had successful collaboration because of various barriers involving budgeting, staffing, staff training, communication, administrative structures, differences in priorities, and a lack of TB-related data (Lobato, Roberts, Bazerman, & Hammett, 2004).

2.4.2. Pre-release TB care

There are many population targets in TB interventions including patients with TB infection, patient LTBI, suspected TB infection and LTBI. Policy makers at the national level decide which group is the starting point of an intervention based on many

considerations. Moreover, to guarantee the continuity of TB treatment, pre-release TB care must be started as soon as possible after disease confirmation (Dara et al., 2009; DHHS CDC, 2006). The policy maker may establish a flow chart of discharge planning for inmates with TB from diagnosis within institutions until release and the finish of an inmate's treatment.

DHHS CDC (2006) mention the components of discharge planning in this context. The first element is to start planning as early as possible. Discharge planning should be initiated as soon as possible after prisoners have been confirmed as having TB or LTBI.

South Stafford NHS Primary Care Trust (2011) recommends that prisoners who have begun their TB treatment less than 2 weeks should not be moved to other institutions since they are still infectious. This can be implied also to the transfer of the prisoner into the general community after release. This is consistent with Immigration and Customs Enforcement (ICE) which have endorsed a policy to apply a short-period of TB treatment. ICE will not deport infectious patients and transport them if their treatment is not yet complete. This still implies a high risk of TB transmission and the disease development to MDR-TB. Therefore, the Advisory Council of the Elimination of Tuberculosis (ACET) suggests refining the policy to emphasize treatment follow-up (DHHS CDC, 2006; Nolan et al., 2003).

Secondly, in providing case management for ensuring TB treatment completion post-detention period, healthcare providers in prisons should consider several issues such as patients' barriers in accomplishing therapy, residence after release whether it is permanent or not, and an inmate's knowledge regarding the importance of follow up. Moreover, a TB patient in prison might have other health problems influencing treatment interruption such as a mental illness and substance abuse. This requires effective case

management strategies such as mental-illness triage and referral, substance-abuse assessment and therapy, appointment with a health provider before discharge, and meeting healthcare services or other social support networks in the community. Another condition, such as an unplanned release should be of important concern (Dara et al., 2009; DHHS CDC, 2006). The institutions can set up detail procedures and formats as guidelines for all healthcare providers and staff working in multidisciplinary teams. Fry et al. (2005) suggests engaging non-medical workers including psychologists, social workers, and the church.

Thirdly, gaining detailed contact information. Healthcare providers in correctional settings should gather important information involving: (1) name, address, and contact number of prisoners' friends or family or relatives or landowners; (2) residence plans after release; (3) venues specifically frequented; (4) places to seek healthcare after release. Prisoners have to fill a form regarding this information (Dara et al., 2009; DHHS CDC, 2006).

Fourthly, assess and plan for prisoners with a mental illness and substance abuse patient therapy including other social services. Both substance abuse and mental illness are the greatest challenges in TB treatment completion. Addiction influences healthcare, treatment adherence, housing opportunities, social interaction, and employment. Additionally, healthcare providers who are not trained to communicate with this population will have difficulties to ensure therapy completion. Partnership between a correctional institution and health department staff will support the involvement of a former prisoner in related treatment programs to enhance social stabilization and successful TB treatment (DHHS CDC, 2006).

Fifthly, build an agreement for post-detention and follow up. The discharge planner should build an agreement for post-detention and follow up. Prisoners with TB

should be introduced (preferably face to face) to community treatment staff who will be responsible for the program. Moreover, they should be provided with TB medication until their next appointment to ensure that former prisoners still have adequate amounts of medication. The discharge planner can work with advocacy groups, the government or NGOs in facilitating the transition process into the community (DHHS CDC, 2006).

Sixth, arrange detail procedures for unplanned release and movement. A correctional TB programmer in the facility should arrange detail procedures by informing of the requirement for released patients. Correctional staff should inform of scheduled and unscheduled release while it is available. All TB information should be provided to the receiving healthcare service. Prisoners should be provided with a discharge card related to their treatment plan to ensure continuity of care (DHHS CDC, 2006).

Seventh, providing education and counseling. These kinds of interventions are a significant aspect in discharge planning in correctional facilities. Many misconceptions persist among prisoners and staff regarding TB diseases and the treatment. Inmates with TB/LTBI should be educated regarding the threat and effect of having TB disease and the significance of the treatment adherence. For those released who have not begun the therapy, they should be counseled on their potential consequences, motivated to go to see their local department of health, and be given knowledge related to how to access to care post-detention. Education should be provided in understanding ways in consideration of language, ethnicity, age, and gender. Moreover, the detainee should be actively involved in the process (DHHS CDC, 2006; Fry et al., 2005).

Several activities in pre-release TB care can be implemented for the transfer and release of prisoners with TB. These involve collecting sputum samples to identify infectiousness if the last examination was positive, and providing the health department address to patients. Healthcare providers in prison should notify the health department

and give medical records, locate information and use standard forms providing three copies for the patient, the transfer unit, and the next service. The patients should be registered as "transfer out". In addition, discharge planners should plan follow-up agreements, refer inmates to other community services according to patients' needs, provide up to 10 doses of treatment and educate the inmate on how to take it. Patients, families, and staff should be well informed in the continuation of the treatment (Bone et al., 2000; Lobato et al., 2004). Furthermore, referral for inmates who might be released before a TB examination result reading and the receiving of TB treatment should be followed up by community based organizations (National Commission on Correctional Health Care, 1996).

Moreover, incentives should be given to attend follow-up appointments (Lobato et al., 2004). White et al. (2002) showed that prisoners with LTBI were more likely to complete treatment after release if an incentive was provided. Fry et al. (2005) identified the ranking of incentives in accomplishing TB therapy for former inmates including money, foodstuff, occupation, transportation, psychosocial assistances, passport, shelter, and information related to TB.

2.4.3. Post-detention community-based case management

Because of various obstacles after release, former inmates with TB need support to overcome such barriers. White et al (2002) showed that incentives can enhance the follow up for latent TB treatment adherence. In terms of this case, policy makers have a significance role in budgeting to facilitate follow up treatment.

Furthermore, community participation plays an important role in ensuring the continuity of TB care after release starting with the inmates' families. Former TB patients can assist patients in coping with their disease and lead the correctional administration in

providing services according to a patient's condition. In addition, committees from the community can participate from the initial planning in prisons, to linking to the outside, until supervising the implementation of the plan (World Health Organization Regional Office for Europe, 2007).

3. Nursing Support for Prisoners with TB Care for Drug Users

There are various kinds of support that nurses can provide to prisoners with drug abuse issues in ensuring TB treatment completion after their release. They include psycho-educational therapies and referral and linkage to resources.

3.1. Psycho-educational therapies

Education and counseling are significant aspects in ensuring uninterrupted TB treatment post-release. Many misconceptions persist among prisoners and staff regarding TB diseases and the treatment. Inmates should be actively involved in the process. Patients, families, and staff also should be well informed to continue the treatment including the threat and effect of having TB disease and the significance of the treatment adherence. For those released who have not begun therapy, they should be counseled on their potential consequences, motivated to go to see their local department of health, and given knowledge related to how to access care post-detention. Education should be provided in understanding ways considering language, ethnicity, age, and gender (Bone et al., 2000; DHHS CDC, 2006; Fry et al., 2005).

In changing drug users' behaviors, nurses should inform them regarding their health conditions, recommended therapies, and their side effects; identify several challenges and respond constantly to their behaviors against those limitations; diminish

obstacles in participation; and be familiar with equipment for drug users. Nurses also should be reminded of the common pitfalls that should be avoided by healthcare providers including making unrealistic goals, being frustrated and irritated, blaming, and withholding therapy (Edlin et al., 2005).

Edlin et al. also synthesized various rules in working with substance-abuse individuals in several healthcare settings including clinics in correctional facilities. In communicating with those persons, healthcare providers must create a mutual respect environment and involve patients in deciding judgments. In working with them, healthcare providers should make agreements regarding roles and responsibilities of each party in the process, uphold a professional approach to deal with this group, enhance an interdisciplinary approach and be supported by a case manager to enhance sustainability. Additionally, these individuals have to establish their own goals and acknowledge that to sustain abstinence requires a huge effort on their part as well as the use of a variety of strategies.

Furthermore, a dialectical behavioral therapy can be employed as a strategy to keep substance abusers in a course or a treatment since they are at higher risk of leaving a program. This approach is effective to re-engage drug users into the course. In the first session of therapy, the therapist orients the patient about attachment problems so that the patient does not stop engaging in the program or lose contact. Therefore, the discussion in next part will be about a plan if the situation happens. For instance, the therapist makes a list of the location, address, and contact numbers of drug-abusing friends. Another strategy is enhancing contact in the first several months of the program, such as scheduling meetings with patients, exchanging phone numbers, conducting interventions in the patient's home or park, and allowing flexible in the duration of communication

(Dimeff & Linehan, 2008). This strategy can be implemented by the researcher in this study to follow up participants in the post-detention period.

3.2. Referral and linkage to resources

Because of various post-release obstacles, former inmates with TB need support to overcome the barriers from many related parties in all levels and institutions (Directorate General of Correction of Indonesian Ministry of Law and Human Rights, 2012). Correctional nurses should build partnerships with public health institutions and volunteer organizations that support the involvement of former prisoners in related treatment programs to enhance social stabilization and successful TB treatment (Dara et al., 2009; DHHS CDC, 2006). In such cases, referrals for inmates who might be released before a TB examination result reading and before receiving TB treatment should be followed up by community based organizations (National Commission on Correctional Health Care, 1996). Fry et al. (2005) suggested engaging non-medical workers including psychologists, and social workers. Each party should have clear responsibilities (Bone et al., 2000).

Only a few of healthcare providers had successful collaboration because various barriers are involved such as budgeting, staffing, staff training, communication, administrative structures, differences in priorities, and a lack of TB-related data (Lobato, Roberts, Bazerman, & Hammett, 2004). Thus, Fry et al. (2005) emphasized communication between correctional facilities and community public health staff with stricter tracking of patients with active TB. DOT through treatment and continuing supervision or adequate coordination can result in better adherence for prisoners after their release (Marco et al., 1998).

Nurses can also collaborate with other parties in providing facilities to support former prisoners with drug abuse problems in order to complete their TB treatment due to the obstacles they may face. These can include the lack of money, food, occupation, transportation, and shelter (Fry et al., 2005). White et al (2002) showed that incentives can enhance follow up for latent TB treatment adherence. Incentives should be given to those ex-mates who turn up to their follow-up appointments (Lobato et al., 2004). Monetary incentives have also been considered as an effective intervention for ensuring TB treatment in drug users. However, only 39% to 80% of drug using ex-inmates with TB completed their treatment. Most did not continue the therapy due to failure to revisit and some felt stigmatization from their society (Chaisson et al., 2001; Malotte et al., 2001).

Furthermore, community participation plays an important role in ensuring post-release continuity of TB care starting with the inmates' families. Former TB patients can assist patients in coping with their disease and lead the correctional administration in providing services according to a patient's condition. In addition, committees from the community can participate from the initial planning in prisons, to linking to the outside, until supervising the implementation of the plans (WHO Regional Office for Europe, 2007).

3.3. Spiritual support

The practice of spiritual care became acknowledged as a nursing intervention since the emergence of the notion of holistic nursing (O'Brien, 2011, p. 137). Spiritual support is needed for patient care for several reasons which include spiritual well-being is associated to health improvement, to reverse religious misunderstandings which influence treatment, to meet the patients' demands according to the religious point of view from the

institution, and to enhance cost-effectiveness (Saad & de Medeiros, 2016).

Nurses' roles in providing spiritual care can be associated with a Muslim's role as a Islam propagandist (*da'ee*) meaning a missionary of propagandist inviting to goodness, instructing what is right and preventing what is incorrect to the path of the Lord called *da'wah*. This activity includes enlightening the right way, directing and presenting the path to the faith of Islam (Bala, 2015; Racius, 2004). Every Muslim has an noble obligation as *da'ee* according to his/her capacity (Racius, 2004; Rofi'i, 2008; Tuasikal, 2012) as mentioned by:

> *"Abu Sa'id Al-Khudri who said, I heard the Messenger of Allah as saying: He who amongst you sees something abominable should modify it with the help of his hand. If he has no strength enough to do it, then he should do it with his tongue. And if he has no strength enough to do it, (even) then he should (abhor it) from his heart and that is the least of faith." (Imam Muslim as cited in Bala, 2015)*
>
> *"Abdullah bin Amr: The Prophet said, Convey (my teachings) to the people even if it were a single sentence..." (Khan, as cited in Bala, 2015).*

There are some strategies that have been successful in *da'wah* i.e. logical approach, continuing education, beautification with good manners, and sincerity. Logical approach through knowledge is an effective method in delivering a message by convincing people using rational thought and logic. Knowledge is crucial because it can eliminate tension because a *da'ee* has to respond to many questions. Continuing education is needed both for *da'ee* and targeted people. The *da'ee* should always update his/her knowledge from routine Islamic forums and other resources. For the directed individuals, continuous guidance is required to plant and nurture seeds of righteousness particularly in an un-Islamic environment and the commitment to behave according to Allah's Law will follow (Bala, 2015; Racius, 2004; Shah, 2016).

Besides delivering messages, *da'wah* also follows and practices Islamic teachings in daily life so she/he can be a good role model for people. He/she should

perform *da'wah* with good manners i.e. in a total way of living including good communication, emotional control skills and behaviors that can beautify the delivered message. A good performance as an example is considered to be more convincing than words (Bala, 2015; Racius, 2004; Shah, 2016). *Da'wah* should conduct hi/herself in suitable ways according to Allah's statement:

> *"Invite (people) to the path of your Lord with wisdom and goodly exhortation, and argue with them in the most-kindly manner. Your Lord knows best who strays from His path and who are rightly guided" (Q.S. 16:125).*

Lastly, *da'wah* should involve genuine advice, pure intention, initiated with wisdom by purifying intentions only to seek Allah's pleasure and perform the task based on honesty and volunteerism. When a *da'ee* has a good intention and well-defined thought, he/she can develop many ideas for the work application and be more successful. (Sincerity and honesty play a role as people magnet. Individuals will see the provider's commitments before asking guidance to meet their needs (Shah, 2016).

Muslim nurses should be aware of their responsibility to employ *da'wah* in their practice to ensure TB patients' continuity of care. Islamic teachings can be used to motivate and guide the patients in order to improve their patience during their treatment and ensure their adherence. Patience in Islam does not mean giving up from any effort (Kasule, 1999). On the contrary, it refers to enduring, tolerating, fighting discomfort and dealing calmly with difficulties (Life, 1994). This concept is crucial for every party involved in the TB treatment since many barriers occur particularly in completing TB treatment after release from prison. Prisoners with TB and illicit drug use might have to face many barriers such as limited time to get TB medicine due to work, and returning to a previous environment that increase the probabilities to be involved in drug use or committing crimes.

4. Islamic Sufism for Raising Consciousness to Enhance TB Treatment Completion after Release

This part provides explanations about Islamic Sufism, the basic concept of change in Islam, and application of Freire's method in changing individuals' perceptions to have a commitment in completing TB treatment after their release.

4.1. Islamic Sufism and change in Islam

Islamic Sufism as one of the disciplines in Islam which aims to reform an individual's life (religiosity, behavior, and experience) in balancing faith and actions (Keshavarzi & Haque, 2013). According to this discipline, Muslims must attempt to achieve full self-awareness by liberating human characteristics in order to gain divine attributes with proper behaviors. All of these efforts are directed toward a Muslim's life goal i.e. returning to God (Chittick, 2001, 2011; Gulen, 2014; Huda, 2004). This is basic knowledge for change to follow Allah's path.

The fundamental ideas of change in Islam are related to consciousness, rationalization, and intelligence as the philosophy that is purposed for enlightenment, development, and self-transformation. The conscious self in Islam is described in terms of "heart" (*qalb*), "spirit" (*rūh*), "self" and "soul" (*nafs*). In Islam, heart refers to human consciousness which has a different meaning with the Western paradigm that associates it with emotion. Some authors consider spirit and soul as similar terminologies. The soul or self has levels of actualization including "the soul that commands (to the evil)" or *al-nafs al-ammāra*, "the soul that blames [itself for its own shortcomings]" or *al-nafs al-lawwāma*, and "the soul at peace [with God]" or *al-nafs al-mutma'inna*. Several authors added "the inspired soul" or *al-nafs al-mulhama* that isderived from Qur'an *surah* 91:7-8

(Chittick, 2011). Individuals who have enlightenment can move from the lowest level to the next one.

Consciousness refers to '"knowledge" as a noun or "the act of knowing" as a verb. The simple explanation of knowledge is as the act of knowing oneself to understand the reality and levels of learning which is the effort to understand the manifestation of self and others' views about it (Chittick, 2011). Knowledge is crucially required for transformations and is acquired through various processes in several elements of change i.e. individuals, activities and relationships, the universe, and Islamic law (Mohamed & Baqutayan, 2011).

Islam emphasizes the individual's change because individuals are viewed as the active change agents who must adapt their awareness, attitudes, values, morality, and spirituality. The human being (*al-nās*) is a basic element of social change and development. There will be no change in any society without changing individuals. Human beings have a responsibility for their growth by utilizing their autonomy and knowledge to transform the social structure in a community as Prophet Muhammad (Peace be upon Him) modeling in his life (Mohamed & Baqutayan, 2011). This is based on a motivation from Allah in Qur'an *Surah* Ar Raad *ayat* No. 11 which mentions that "… Surely, Allah does not change the condition of a people until they change that which is in their hearts…." (*The holy Qur'an text and translation*, 2008).

"Self-criticism or self-interrogation" is a method in Islamic Sufism used for Muslim conducting self-evaluation towards their actions (Ghazali, 1978 as cited in Sipon et al., August 8, 2008). This reflection is crucial in looking back on an individual's performances and acknowledging one's own weaknesses and considering the next actions based on this evaluation. By practicing reflection, the person will have such life skills including capabilities in self-introspection in the past, present and future life; readiness in

dealing with the future; abilities to avoid mistakes done in the past; self-purification from all mistakes; and continual internal dimension reformations. All aspects aim to gain goals and succeed in dealing with various challenges (Gulen, 2014). This process results in consciousness and change.

4.2. Application of Paulo Freire's method

The starting point in the reflection must be current, existential, in a real situation, and reflect the hope of the people (Freire, 2005). Muslims must be aware of their existence in this world. Allah mentions in QS. 56:56 that He creates human beings in the world for worshiping Him (*The holy Qur'an text and translation*, 2008). All of Muslims' thoughts and behaviors are implications of their devotion towards Allah. They must perceive and behave appropriately according to Islamic teachings. Therefore, they have to evaluate whether their perceptions and behaviors are appropriate with Islamic values or not, and this includes the context of TB treatment continuation after release from prison.

Freire (2005) purposed a problem posing education emphasizing on dialogue where researchers or educators discuss their views with participants. The idea exchange occurs when discussants interact without the domination of any party to annoy their own reality. In this dialogue, the researchers stimulate participants' restlessness regarding an issue to begin the process of transformation (Durakoğlu, 2013). In terms of TB treatment continuation after release, researchers should explore participants' perceptions regarding this topic and then share several issues including the consequences of interrupting TB treatment continuation post detention and false consciousness contributing to this. Then, the researchers can create dialogue to raise participants' level of consciousness and how they should behave particularly as Muslims.

The process of *concientization* is not only at a subjective perception level, but through prepared action in the struggle against the challenges to their humanization as well. Individuals will develop their new critical awareness during reflection and action (Freire, 2005). In the both activities, patients will gain new perceptions that strengthen their beliefs as good Muslims in the world because their efforts are aimed at caring for their health and provides strength in order to improve piousness and devotion to God (Al-Atsari, 2012).

5. Participatory Action Research (PAR)

Action research is an investigation (describing, interpreting, and explaining) conducted by participants in social setting to enhance judgment and justice in advancing their actions (Kemmis & McTaggart, 1988; Waterman, Tillen, Dickson, & de Koning, 2001). The main characteristics of this method are searching for practical practice concerns, the partnership between researchers and practitioners in a cyclic procedure, focus on change, and theory generation (Denscombe, 2007; Holter & Schawtz-Barcott, 1993 as cited in Streubert & Carpenter, 1999).

PAR is a type of action research emphasizing the partnership among researchers and participants by involving them as co-researchers during the study (Argyris & Schon, 1991 as cited in Streubert & Carpenter, 1999). This collaboration will enhance the validity of the study result by data verification by participants so this can represent a particular phenomenon. This method also empowers participants during the process to make change (Reason, 1994 as cited in Streubert & Carpenter, 1999). Therefore, participatory action researchers involve practitioners as co-researchers in all stages of the investigation (Streubert & Carpenter, 1999).

5.1. Phases of PAR

Kemmis and McTaggart (1988) purpose action research stages in each cycle consisting of reconnaissance, planning, enacting and observing, and reflecting. In this study, the researcher will apply the PAR model of Kemmis and McTaggart. Moreover, the researcher will adopt Freire's procedures of conscientization to support the reconnaissance phase in the model of Kemmis and McTaggart. This process will produce a new world view so participants will be ready to change their attitudes and behaviors as well. This process is also consistent with Islamic self-reflection in which individuals evaluate their performances and acknowledge their own weaknesses and consider the next actions they should take based on this evaluation.

5.1.1. Reconnaissance phase

The purpose of the reconnaissance phase in the first cycle of action research is understanding participants' views regarding a thematic concern. People involved in the study should answer various questions related to those topics which guide them in order to be more aware about the thematic concern. The inquiries consist of the history and present usage, conflict, institutionalization, effects, and the associations among the three major topics of ideas, activities, and social relationships. The result of this analysis should be checked and commented on by investigators before being shared and discussed with the participants in the group (Kemmis & McTaggart, 1988).

This stage is relevant with Freire (2005) who elaborates the enlightenment stage in PAR involving codification and decodification. Initially, investigators conduct codification i.e. an identification of a crucial issue that participants may be not aware about it. In this phase, the topic is still a blurry phenomenon as a coded situation. In this study, the coded situation is TB treatment completion after release. In the decodification,

the researcher brings the participants into the issue and stimulates their awareness regarding this. In this process, the researcher explores participants' ideas, hopes, doubts, values, and challenges of concern and how they have occurred. This phase will generate historical themes and finally a thematic universe as a holistic understanding of the phenomenon will arise.

As explained before, concientization is developed through reflection and action. In the decodification, this process of conscientization is at the perception level. The researchers try to externalize participants' consciousness by sharing the researchers view and initiating dialog with participants regarding the participants' and researchers' points of view and they will reflect those ideas in their thinking. This is called dialectical confrontation that will produce meaningful themes which is a new way of thinking as a process of enlightenment (Freire, 2005).

In the study, the researcher will divide this phase into two sessions. First, the researcher will explore participants' ideas, hopes, doubts, values, and challenges of concern regarding TB treatment completion after release and the history of the development of the ideas that come up. The first session objective is to understand the whole phenomenon. The second session will be a group dialogue (to raise participants' new perspectives.

5.1.2. Planning

The planning as the second phase is directed with a single question: "what can be done to improve the situation". The preparation is related to three main issues i.e. language and expression, activities and performances, and social relationships and organizations; and around specific issues including identification of action on changing those issues, the modification of participation in the conflict of them, institutionalization

of the adjustments, the alteration of relationships with others affected and engaged, and the link among those issues, and planning for observation. These processes will be conducted in a working group and the results will be presented in a first draft of rational thinking for change and an action plan (Kemmis & McTaggart, 1988).

5.1.3. Enacting and observing

The third phase is the implementation of the planning and the observations of the implementation. In this stage, researchers apply the action plan and observe the present usage of alternatives, agreement and disagreement, the movement towards the institutionalization of the contemporary usage, the change of relationships between others affected and involved in the group process, and the associations between those issues. During these procedures, investigators must organize, analyze the data, and perform a self-evaluation. This reflection permits researchers to notice any missing data and to acknowledge where to look for the answers. The goal of these processes is to understand the situation comprehensively (Kemmis & McTaggart, 1988).

In this phase, the participants can experience the enlightenment process during the implementation of the planned actions. In their effort of re-gaining their humanization, they will obtain new knowledge in social realities (Freire, 2005).

5.1.4. Reflection

In the last stage, reflection, investigators conduct analyzing, synthesizing, interpreting, describing, and illustrating conclusions with integrating categories across the main ideas of the thematic concern. After this, researchers discuss the reflection product with group members to review the appropriateness of those alternatives whether there is still any disagreement or not. In this moment, investigators need to decide the next action

and modify the thematic concern or alternatives in the subsequent stage which is re-planning (Kemmis & McTaggart, 1988). Freire (2005) explains that the second decodification through reflection is implemented in this phase. In this phase, the participants will re-consider their previous considerations for the next re-planning.

5.2. Factors influencing PAR process

A successful action research depends on the participation of the people involved in the process. Waterman et al. (2001) identify various determinants influencing participation in an action research. Positive features facilitating the project involve (1) participant's perceptions of the research context, (2) participant's engagement in identifying a concern, (3) effective improvements and strategies to enhance sustainable changes, (4) using available knowledge and experience, (5) using sharing as an education method, (6) creating a participant's interest, (7) strategies to enhance participation and changes, (8) problem solving towards an inhibitor to change, (9) enhancing ownership of transformation, (10) facilitating rapid transformation, (11) creating bonds, (12) giving assistance, and (13) time efficiency.

Moreover, several factors may inhibit the process. These include (1) the disturbances toward decision making and problem solving that have been determined, (2) starting change in the present relationship, (3) persistence energy consumption, (4) domination of some participants, (5) feedback perceived as a threat, (6) creating emotions if modifications are not applied, (7) resistance towards transformation, and (8) time consuming (Waterman et al., 2001). All of these factors might occur in this study, therefore, the researcher will implement strategies in working with participants as mentioned above.

6. Summary

Male inmates are an important target group in TB control because they are the highest population of prisoners and have high risk health behaviors. Moreover, this group requires extra attention in TB treatment completion after their release since most of them are likely less than females to seek assistance and this includes in the sector healthcare. The life of male prisoners with TB particularly those with substance abuse problems also needs to be considered in ensuring TB treatment completion post-incarceration in the physical, psychological, socio-economic, and spiritual dimensions.

To support patients in ensuring TB treatment completion post-detention, there are a number of nursing supports in enhancing TB treatment completion for drug users including psycho-educational therapies and referral and linkage to other resources. Moreover, Islamic Sufism can be integrated in delivering support for enhancing TB treatment completion of prisoners with drug use problems after their release from prisons.

Participatory Action Research (PAR) is a research method that is useful in modifying individuals' lives. In this study, the researcher will apply the action stages of Kemmis and McTaggart which consist of reconnaissance, planning, enacting and observing, and reflecting. The model is integrated with Freire's enlightenment process. The phases will be repeated in cycles until the model is saturated. In conducting this method, researchers should consider several influencing factors particularly those that inhibit the process.

CHAPTER 3

METHODOLOGY

This chapter provides further information about the research design, participants, study setting, instruments, ethical considerations, data collection, analysis, and the trustworthiness of the data.

1. Research Design

This study design is participatory action research (PAR). It is chosen based on the philosophy underpinning the design, which is critical theory. The researcher explored the situations of prisoners with TB and drug abuse issues related to TB treatment completion after their release and presented ideas to the prisoners to empower them in facilitating uninterrupted TB therapy.

2. Research Setting

The study was conducted in a prison in Jakarta with a facility capacity of 1,085 detainees. However, it accommodated around 3,000 prisoners. This setting carries out various programs to achieve the institution goal such as occupational training, religious, and healthcare activities.

Healthcare service in the prison conducted in a health clinic with several rooms for physical examinations, dental care, methadone provision, medicine provision, nurses, and inpatient care. Moreover, there was a particular cell for TB patients to stay in from the time they were diagnosed with TB until they have been cured.

There are various services provided in the TB Program i.e. suspect screenings, sputum smear fixations and sending the prisoners to the hospital that is located in the next building of this prison for diagnosing TB, DOT, health education for new patients, counseling for patients who discontinue their therapy, and support groups once a month. Additionally, religious activities are provided separately to the healthcare services.

Healthcare providers in this institution involved four physicians, a dentist, and eleven nurses. Before the study, the TB program in this setting included a physician as a TB-HIV program coordinator, a physician as a TB program coordinator, a nurse in documentation and reporting functions. During the study, a nurse was added to the laboratory division and a nurse was added to the pre- and post-release program. Their roles were supported by NGO personnel in ensuring pre- and post-release TB treatment completion, referring prisoners released with TB to healthcare services in community i.e. primary healthcare and hospitals, and reporting the therapy results from the referral healthcare services to the prison during the NGO project period.

In the beginning of the study, there were two associate prisoners as TB treatment observers facilitating the program by delivering anti TB medicines to patients and conducting sputum smear fixations. Both of these prisoners were released during the study and replaced by other two inmates.

The study was also performed in the community in PHCs, the participant's home, and a food court in Jakarta Metropolitan area as the most heavily populated in Indonesia, located in the western part of Java Island. Jakarta is crushed with the negative consequence of rapid population growth, a large population, and concerns of the provision for the poor involving refugees and residents. These burdens increase continually (Cybriwsky & Ford, 2001). This dense population consists of various religions, races, and ethnicities.

3. Participants

Participants in the study were categorized in two groups; direct and indirect participants.

3.1. Direct participants

The direct participants or key informants are those who are knowledgeable regarding other people, procedures or events as the important source of information (Payne & Payne, 2004). This group involved healthcare providers in the prison including a physician, two nurses, and two associate prisoners as TB treatment observers. In addition, the researcher engaged two Islamic leaders, and one NGO person in this study. The researcher employed convenience sampling with an inclusion criteria of Muslims, providing TB care in the prison and/or Islamic teachings.

3.2. Indirect participants

The indirect participants were those who enriched the data from the direct participants, particularly those who received the care. This group consisted of male prisoners with TB who continued their therapy after being release from a prison in Jakarta as targets. The researcher also employed convenience sampling with the inclusion criteria of: (1) patients with TB and illicit drug use or history of it, (2) Muslims (declared that there is only one God and Muhammad is His messenger), (3) aged more than 17 years, (4) had to continue TB therapy after being released, (5) be able to participate in this study, (6) be able to communicate, and (7) be able to express their ideas.

Ten participants who met the criteria were involved in the study. Five of them participated in the first cycle, three in the second cycle, and two in the last cycle. In the process, a participant passed away (Patient 1) in the prison, and two participants finished their treatment in the prison (Patient 2 and 3), and a participant did not have any history of illicit drug use (Patient 8). The miss-prediction of completion time in Patient 2 and 3 happened due to an obstacle in identifying the time of release that happened in all participants and the mistake regarding Patient 8 occurred because of a difference between the fact and documentation whereas he was sentenced as an illicit drug user but in fact he was involved in illicit drug trading. The researcher kept this participant since he provided valuable information which was not obtained from others. In addition, two family members of the participants were engaged to confirm and enrich the data from the prisoners.

4. Ethical Consideration

The researcher obtained approval from the Institutional Review Board, Faculty of Nursing, Prince of Songkla University and asked permission from the Jakarta Regional Office of Indonesian Ministry of Law and Human Rights. Then, the researcher explained the investigation to all the participants involved this study consisting of the study purpose, process, and the role of the participants and the researchers. As participants are crucially involved in the study, individual conversation was chosen to acknowledge participants' understanding and responses regarding the study and the researcher provided appropriate responses. The explanation was written in an informed consent form (appendix H). The researcher also conveyed that the participants could be engaged in this study without compulsion and could withdraw at any time they wanted to.

In this study, the ethical issues as major concerns were authority and privacy. Mostly, prisoners have lost their right to determine any decision during their incarceration. To deal with this issue, the researcher emphasized on the participation of the prisoners in their decision making because it is related to their life. Other parties only supported and provided suggestions as considerations in the decision making process. The final determination was on the prisoners themselves.

To enhance protection for the participants, the researcher conducted several actions. In the process, participants might feel stressed, discomfort, or worries such as P_6 and P_9 who got worried about the uncertain time of release. The researcher facilitated by monitoring and explaining the reason why the process was so long and why it could not be predicted. Moreover, to reduce participants' worries, the researcher did not use a videotape in recording the process and the audiotape will never be used in data presentation during result dissemination.

Another crucial issue was anonymity and confidentiality that also influenced the participants' discomfort. The researcher guaranteed the privacy of all participants. The researcher discussed this issue with healthcare providers and prisoners to make an agreement in regards to the boundaries in ensuring prisoners' privacy involving who can access the raw data. This also included reporting the results so the researcher protected the participants' identification by providing participant codes and keeping important data that may identify any prisoners such as prisoners' addresses and locations of primary healthcare facilities after release. The researcher did not ask for prisoners' signatures and names for informed consent and modified this with a participant's code. In the data cleaning, the researcher removed several identifiers such as addresses and phone numbers of participants and their families in the files and printed data (Kaiser, 2009).

All participants in this study had the same rights in speaking about their opinions based on their perspective, sharing their values, determining their positions, selecting methods, and engaging in the process. Because this research method requires mutual collaboration among all involved individuals, particularly prisoners and healthcare providers in the prison, the researcher shared some communication skills for the healthcare providers to interact with and empower prisoners.

5. Instruments of Data Collection

In this study, the researcher was the main research instrument to collect the data. As the researcher is a novice in qualitative study, the researcher conducted a practice in interviewing prisoners before the study began. This activity was also performed in order to train the researcher in building trust and getting comfortable while interacting with prisoners.

Furthermore, the researcher employed additional instruments to collect data consisting of: (1) demographic data of direct participants (appendix A), a guideline for discussions with the TB program coordinator in the prison (2) (appendix B), (3) interview guideline with healthcare providers in the prison and the NGO person about the situation and the expectation of TB treatment completion after being release and the nurse's role supporting this (appendix C), (4) a prisoner's demographic data (appendix D), (5) interview guideline with prisoners about the situation and expectations of TB treatment completion after being released and the nurse's role supporting it (appendix E), (6) focus group discussion guideline for the planning phase (appendix F), and (7) reflecting and re-planning guidelines (appendix G). These instruments were reviewed by two experts consisting of a lecturer at the Faculty of Nursing in Prince of Songkla University who is

an expert in qualitative studies and a professor in Islamic-Sufism in an Islamic University in Indonesia.

5.1. Instruments for collecting data from healthcare providers

The guidelines for discussion with the TB program coordinator in the prison (appendix B) involved study description (purpose and process) and her suggestions regarding several issues including potential participants and project implementations (time frame, venue, procedures, coordination and communication with healthcare providers, NGO personnel, and other correctional staff as indicated, and family visiting prisoners in the prison).

The demographic data of the direct participant instrument (appendix A) consisted of gender, age, marital status, education, occupation, and position in the TB program. The researcher asked for this information from the healthcare providers and associate prisoners in the prison and the NGO personnel before collecting other data from them.

An interview guideline with healthcare providers (appendix C) consisted of their description regarding the current situation of TB treatment completion after release of prisoners with drug abuse issues, perceptions and expectations regarding the possibilities of post release TB treatment completion results of prisoners with drug abuse issues, and expectations regarding the nurse's roles in supporting TB treatment completion after the release of prisoners with drug abuse issues.

5.2. Instruments for collecting data from prisoners

A questionnaire to collect demographic data of prisoners (appendix D) consisted of prisoners' identity and important information regarding their contact information and planning after release including continuity of TB care after release. The researcher filled

in this tool by interviewing the prisoners and matching the data with administration and medical records.

The interview guideline for prisoners (appendix E) questioned their experience in completing TB treatment after release, possibility and expectations toward their TB treatment completion after their release, and expectations toward nurses in supporting their TB treatment completion after their release.

5.3. Instruments for collecting data from all participants

The researcher also employed several instruments for collecting data for all participants. FGD guideline was for the planning process (appendix F) to achieve a common goal toward TB therapy completion after release. It explored activities to attain the objective, roles of each party, implementation (time, place, and strategy), and success indicators for each activity. The researcher also purposed alternatives in facilitating prisoners to complete their TB therapy after their release.

Reflecting and re-planning guidelines (appendix G) were also utilized to evaluate nursing support implementation and modify ineffective methods, which were used in a focus group at the end of every cycle. In the instruments, the researcher expressed the implemented strategies and asked for participants' opinions, questioned the TB therapy results, factors influencing the results, and the method to modify ineffective problem solving to facilitate patients' TB therapy completion after their release.

Moreover, several tools such as a journal book, voice recorders, and stationary were used for facilitating data collection. A journal book was crucial in structuring the researcher's ideas, noting new ideas, and recording important data that cannot be recorded by a tape recorder or other methods. The researcher used a voice recorder.

Photographs and video tape recording were avoided since prisoners might not prefer these kinds of documentation due to confidentiality issues.

6. Data Collection

The study was divided into a preparation stage and the cyclic process of data collection and analysis. The preparation stage consisted of a discussion with the TB program coordinator in the prison and participant recruitments. The cyclic process described the participatory action research from reconnaissance until the evaluation process.

6.1. Preparation phase

The phase involved several activities to prepare the setting and participants for data collection.

6.1.1. Discussion with the TB program coordinator in the prison

The researcher discussed the project with the TB program coordinator in the setting. This was crucial to get her suggestions and support during the process. The researcher explored her opinions regarding the central issue (TB treatment completion after release in drug users) and comments regarding the project based on the guideline (appendix A). The researcher also encouraged her to involve in this study and to identify several resources related to the study implementation such as venues, personnel, timing, and funding and to make some agreement regarding those items. As she agreed to participate in the study, the researcher required her to sign an informed consent form (appendix H). After that, the researcher identified direct participant candidates including

healthcare providers, NGO personnel, and associate prisoners in the prison. The researcher wrote down the results as field notes. The indirect participant was identified together with the TB nurses and the associate prisoners.

6.1.2. Participant recruitment

Participants were divided into direct and indirect participants.

6.1.2.1. Direct participants

All healthcare providers in the prison who were involved in the pre and post release TB program consisted of a physician as the TB program coordinator, two TB nurses (a new TB nurse was added after a staff reshuffle), and two TB treatment observers (a new TB treatment observer replaced another one who was released). One of NGO personnel facilitating patient referral also contributed to the study.

The researcher also involved Islamic religious leaders. A religious leader from the community who was not involved in the prison activity was engaged by the researcher from the beginning as the researcher could not connect to the Islamic leader in the prison. Another was an associate prisoner who was actively involved in Islamic activities in the prison called *santri*. A correctional staff member who was responsible in Islamic activities in the prison facilitated the researcher to select and connect with the associate prisoner. Firstly, the staff provided two *santri* and the researcher met them. But in the data collection, only one of them came to the activity of data collection.

The researcher found that the participants in every cycle had a different highlight so this influenced the researcher in engaging with them. For example, in the planning phase in the first cycle, the researcher only involved the available health care provider including the physician and a nurse (Nurse 1) because it was urgent to discuss about the

mechanism to prevent lost patients in the pre-release period. In addition, the researcher added another nurse based on an agreement in the planning in the first cycle. Another condition was the NGO person's involvement only in the reconnaissance phase because of the end of their project in the prison.

6.1.2.2. Indirect participants

There were two sources of participant candidates i.e. those who came to the clinic to get treatment due to their physical complaints and those who were diagnosed as having TB from TB screening. The researcher with the TB nurse predicted whether the patient would finish their therapy in the prison or in the community by identifying their date of release. The researcher and the nurse continually updated this until a participant's release date decree was published for those participants who had been predicted to finish their treatment in the community.

The researcher approached prisoners who met the inclusion criteria, initiated introductions, explained the study aim and procedures, and emphasized that the study would help them and be of benefit to them. If they had any questions, they could ask. After understanding and agreeing to participate in the study by writing the participant's code on the informed consent (appendix H), they were confirmed as participants and were engaged in the activity.

The number of prisoners engaged in each cycle was determined by the availability of TB patients predicted to continue their treatment after release and the time they finished engaging in the study. The recruitment of prisoners depended on the information from the nurses and the associate prisoners. They informed the researcher of some TB patients who were predicted to continue their treatment after release. Then the researcher continuously gained information about the prisoners' date of release from the registration

division and the help desk depending of the type of release. This was conducted due to the uncertain dates of release. Furthermore, each participant involvement in the study ended at different times. This caused some of the participants being engaged in the next cycle.

Family involvement in this study was important to confirm and enrich the data. The researcher got family members' phone numbers from the participants. Moreover, since the TB nurse failed to contact the prisoners after they had been released, the researcher decided to visit them. A visitation in a participant's home was without an appointment and another was at a food court based on the participant's preference.

In the recruitment process, the researcher discussed the study including the background, aim, procedures, and the participants' roles. If they had any questions, they could ask the researcher. In encouraging them to be involved in the study, the researcher discussed the benefits and ethical considerations of the study. After understanding and agreeing to participate in the study by signing the informed consent, they were confirmed as participants and engaged in the activity.

6.2. Process of data collection

All phases were implemented in the prison except enacting and observing in which some activities were conducted in the community. During data collection, the researcher performed data collection and analysis in every single step. This section explains the procedures of each activity in data collection and the description of the data analysis will be in the next section.

6.2.1. Reconnaissance

The purpose of this phase was to capture the current conditions of post release TB treatment completion of prisoners with drug abuse issues. This stage involved interviews and observations. The researcher conducted both individual and group interviews because of the difficulty to getting more than three participants gathered at one time to make a group. The researcher involved five prisoners in this phase. Before the meetings, the researcher studied the participants' demographic and health status data. This information facilitated the researcher to collect in-depth data from each participant such as TB category and their continuity of TB treatment during their time in the prison. The researcher asked the prisoners for their reasons for their treatment interruption.

The researcher individually interviewed the indirect participants, a physician, a nurse, and NGO person at different times with the prisoners since the discussion was dissimilar in the context of the care providers. Before interviewing, the researcher noted participants' demographic data and explored their description regarding the current situation of TB treatment completion after the release of prisoners with drug abuse issues, perceptions and expectations regarding the possibilities of post release TB treatment completion results of the prisoners with drug abuse issues, and perceptions regarding the activities in supporting TB treatment completion after the release of the prisoners with drug abuse issues.

Furthermore, the researcher observed several events regarding the TB program in order to understand the situation. This included TB treatment observers' actions, TB nurse's roles and attitudes, and the health education provided for TB patients by a physician when they were diagnosed as first having TB and the routine activities in educating TB patients.

6.2.2. Planning

This phase aimed to develop Islamic-based nursing support in enhancing prisoners' post release TB treatment completion. The researcher conducted focus group discussions with both direct and indirect participants identifying details in each activity to facilitate prisoners in completing TB therapy after their release.

6.2.3. Enacting and observing

The planned strategies were implemented in the prison and the community including in the Primary Health Care setting, a participant's home, and a food court in a mall. Various parties were involved in this phase consisting of the researcher, TB nurses, a physician, associate prisoners as TB treatment observers, an associate prisoner who was active in Islamic activities in the prison, an Islamic leader, prisoners' family members, PHC nurses, and administration staff in the prison.

The researcher facilitated several activities that could not be done by the nurse in the prison including communication with referral PHC staff, participants and their family. The researcher directly visited the PHC staff, family, and patients for observation. The visitation was conducted with and without appointments because the researcher failed to contact the family members. Besides following up the therapy, confirmation regarding dissimilar data reported by the correctional nurse was performed in this visitation. The researcher also reminded the providers if there were activities that had not implemented yet. Additionally, the researcher provided reinforcement toward positive changes even if it was small. This enhanced participants' motivation and encouraged them to keep performing the support.

The researcher also observed and monitored each activity related to the planning implementation such as the process of the execution and participants' behaviors. The

monitoring was conducted by asking the nurse, the physician and the TB treatment observer. During the process, the researcher kept documenting these processes in detail in a project diary and immediately documented the data after any interaction, when conducting reflection, and when any new ideas came up.

6.2.4. Reflecting and re-planning

The objective of this phase was to evaluate the implementation. Focus group discussions were conducted at the end of each cycle. Initially, the researcher reviewed the strategies agreed upon in the planning phase, and let the participants evaluate the nursing support implementation by questioning the results and factors influencing the achievement. The researcher explored procedures to modify any ineffective support and the participants refined the planning to be applied in the next cycle. The cycle was repeated until there was no new strategies suggested by the group. This was achieved in the third cycle.

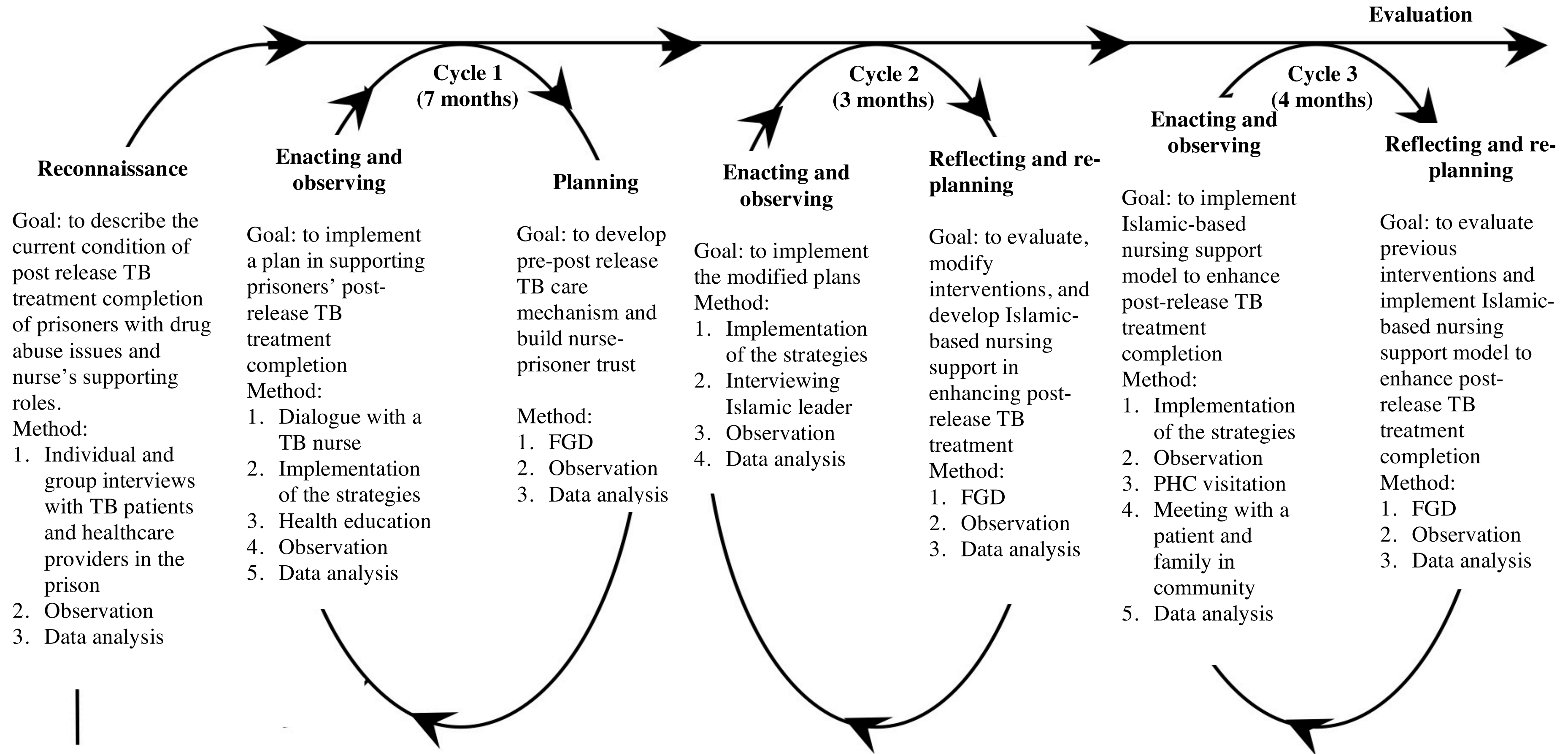

Figure 3.1. Methodological framework of the study

7. Data Analysis

This section explains the data analysis procedures and generated themes in each step. In performing these activities, the researcher applied the qualitative data analysis framework of Miles and Huberman (1994) which consists of: (1) data reduction, (2) data display and (3) conclusion drawing/verification.

7.1. Data reduction

For data reduction, the researcher transformed the data from the transcripts into themes. The researcher began with transcribing the data from the voice recorders and field notes which were in Bahasa Indonesia, which was then translated into English showing each line of the transcript. The English translation helped external auditors in understanding the meaning and minimizing any bias in interpreting the data as well as supporting the confirmability of the data. Then the researcher selected the data answering the research questions by highlighting particular statements.

7.2. Data display

The researcher organized the information in a table consisting of descriptors (data), location of the data (including participants' codes, data collection method, and statement lines), and themes/subthemes. Themes/subthemes were generated by underlying key terms, and the clustering of several statements which had similar meaning in the same categories by comparing statement meanings with the concepts related to them.

Next, the researcher integrated the themes and categories in the table into a graph as a visual format by detecting differences and noticing the pattern of generated themes or

categories. In addition, the graph was also built in a logical chain of evidence. In addition, analytic text was added in order to explain the picture.

7.3. Conclusion drawing/verification

The data display process occurred until data collection was over and resulted in a final configuration. Then, inter-subjectivity consensus was conducted by argumentation and colleague review. In this case, the researcher conducted peer debriefing with a Muslim colleague and advisors. Moreover, the healthcare providers in the prison verified the conclusion graph and the explanation text by providing feedback to assess the model accuracy from their perspective after the themes were fixed.

8. Trustworthiness of the Data

To guarantee objectivity and validity of the data, the researcher employed several strategies in enhancing credibility, confirmability, transferability, and dependability of the study.

8.1. Credibility

To enhance the study credibility, the researcher built relationships with the participants in getting honest data by prolonged engagement, triangulation, and member checking (Lincoln & Guba, 2013). In performing prolonged engagement, the researcher was involved in the health service activities in the prison such as health education and TB screening. This strategy was undertaken in order for the researcher to be a part of the health system in the setting. For the prisoners, the researcher tried to build trust from

communication in informal situations since they were identified as participant candidates. The researcher's language both verbal and non-verbal must show respect and acceptance.

The researcher applied triangulation in the resources including the direct and indirect participants and method triangulation to confirm the validity of the data. For instance, the researcher confirmed the prisoners' demographic data with data from the information system in the prison and the families of the prisoners. The researcher also crosschecked data from the TB nurse in the prison with the TB nurse in the referral PHC.

Finally, the researcher employed member check with the participants. The researchers provided the transcripts of interview to the participants and clarified answers from the participants.

8.2. Confirmability

An audit process can be performed to enhance this criterion (Lincoln & Guba, 2013). An audit trail was employed to ensure the tracking of the study results from the raw data. The researcher kept the complete questionnaires, interview transcripts, field notes, audiotape recordings, and a research diary/journal. In the data analysis table, the researcher attached the data codes. The code included the participant code, the methods such as interview (I), dialogue (D), group interview (GI), focus group discussion (FGD), and field notes (FN), and the line of the data (L). Thus, the themes can be confirmed from the meaning of each word from the raw data.

Moreover, the researcher confirmed each emerging theme with the participants to ensure the meaning according to them in the model verification process. For healthcare providers in the prison, the researcher also returned the interview and focus group discussion transcripts for each sentence to be validated by them. They were required to confirm it by providing a tick symbol at the end of the sentence they provided. For

prisoners, the researcher restated their information in the interview process and reflected it back to them to be confirmed.

Finally, advisors were required to be external auditors to conduct member checking related to theme and category generation based on the related concepts. In this case, the researcher involved the advisor, and the co-advisor.

8.3. Transferability

The researcher provided thick descriptions regarding the study context, the community situation, participants, setting, and the environment (Lincoln & Guba, 2013). This helps the reader to understand the setting and context to utilize the results. Moreover, the data saturation and various samples and data collection methods enhanced the completeness and richness of the result explanation to be applied in a similar setting.

8.4. Dependability

The researcher presented the study with a thick description related to the audit trail including how the data was gathered and analyzed until theory generation (Lincoln & Guba, 2013). This provides clarity of the results based on the data gathered. Moreover, the researcher attached samples of sentences where the data come from so the reader can understand the origin of the emerging themes.

CHAPTER 4

FINDING AND DISCUSSION

This chapter provides detailed information regarding the findings and the discussion including demographic characteristics of the participants, emerged themes and subthemes and supporting data, and the model display and its explanation. The findings are presented simultaneously with the discussion in each section.

1. Demographic Characteristics of Participants

The participants consisted of direct and indirect participants who were Muslims. In addition, all of them lived in Jakarta Province, Indonesia.

1.1. Direct participants

The researcher involved eight participants in the study both from the prison and from the communities. They consisted of a TB program coordinator, two TB nurses, two TB treatment observers, an NGO person, two Islamic leaders, and two patients' family members. The TB program coordinator was a general physician, 36 years old, married and had worked in the TB program in the prison since 2010. In the initial period of the study, there was a general nurse (Nurse 1) who was 31 years old, and a married woman who had been involved in TB program in the prison since 2009. After the researcher had conducted a dialogue with her, she decided to continue her nursing education in the profession level because of professional requirement in the prison. Therefore, a new TB nurse (Nurse 2) was engaged to perform particular jobs in the pre and post release TB program and Nurse 1 was kept in the documentation and reporting. The second nurse was

a Diploma 3 nurse, 27 years old, married, and had worked in the prison since September 2014. Previously, she had worked in a prison in West Java Province and had moved to Jakarta after she got married. She joined the study after the planning phase.

Two associate prisoners as TB treatment observers were also engaged in the study. The first observer was a male prisoner (Treatment observer 1), 27 years old, and married. His highest education was Technical High School and he joined the TB program for a year. He was interested to participate in the prison TB program because he had experienced TB disease, therefore, he wanted to help other TB patients. After his release, his job was continued by another associate prisoner (Treatment observer 2) who was 37 years, and married. He had obtained a bachelor degree in computer science and joined the program for 9 months. His motivation was to pass the sentence period with positive activities and for worshipping purposes.

One of NGO personnel was on duty in the prison particularly in the TB-HIV post-release program in that period so she was engaged in this study (NGO person). She was 37 years, married, and her highest education was Senior High School. She was a TB-HIV case manager in an NGO and had been involved in the TB program for 12 years. Her HIV status was positive and this encouraged her to help people living with HIV infection (PLWH).

The researcher also involved Islamic leaders in the study. The first leader was an Islamic teacher who actively conducted Islamic preaching in the community. He was 47 years old, married, and his highest education level was senior high school plus Pondok Pesantren (Islamic boarding school). The second leader was an associate prisoner, 34 years old, married, with a senior high school n education background. He was active in the Islamic program in the prison known as *santri*. His motivation to join the Islamic

program was to memorize the Holy Qur'an and the contents and he wanted to be a better individual.

1.2. Indirect participants

Ten male prisoners with TB and drug use participated as indirect participants. All participants were predicted to finish their TB treatment after release. However, for two participants (Patient 2 and 3) were subject to an incorrect prediction for their date of release because of the uncertainty in the release dates published. In addition, a participant (Patient 1) passed away in the process of waiting for his release date.

The researcher involved a TB patient who had stopped his TB therapy but he had to continue his TB therapy after released (Patient 4). It was of interest to know why he had stopped his TB therapy before being released. When the researcher requested him to be involved in the study after an interview, he refused. The characteristics of the patients are shown in the table 4.1.

Since family involvement was crucial in the study, the researcher collaborated with two participants' family members. The first was Patient 7's cousin who was active in TB activities in an Islamic NGO so she knew many things about TB (Family 1). She routinely visited him while he was in the prison. He got TB treatment in the prison because of her advice when he had physical problems related to TB symptoms. She could identify the symptoms because she was a TB activist in an Islamic NGO. She lived with him and was responsible in controlling his treatment therapy after his release. The second was Patient 9's wife (Family 2), 30 years old, working as a staff member in an accountant's office. She only once visited her husband when he was in a jail, before being

moved to this prison. She lived separately from her husband after he was released. Each lived with their parents.

Table 4.1

Distribution of TB patients' characteristics (n=10)

Characteristics	Frequency (n)	Percentage (%)
Age (years)		
21-30	4	40
33-40	4	40
41-50	2	20
Marital Status		
Single	6	60
Married	4	40
Sentence Period		
≤ 5 years	7	70
> 5 years	3	30
Type of Release		
Release on license	7	70
Release on expiry date	3	30
TB Classification		
New	8	80
Relapse	2	20
Pulmonary TB	7	70
Extra pulmonary TB	3	30
Methadone Therapy		
Yes	0	0
No	10	100
Co-morbid Disease		
HIV	5	50
N/A	5	50
Final TB Therapy Result		
Death in the prison	1	10
Completed in the prison	2	20
Interrupted in the prison	1	10
Completed after release	3	30
Interrupted after release	1	10
Could not be detected after release	1	10
Predicted as completed	1	10

2. Process of Developing the Islamic-based Nursing Support Model for Enhancing TB Treatment Completion in Drug Users after Release from a Male Prison in Indonesia

The phases of action research which consisted of the reconnaissance phase and the spiral of three phases (planning, enacting and observing, and reflecting and re-planning) were followed to develop the Islamic-based nursing support model for enhancing TB treatment completion after release.

2.1. Reconnaissance phase

This phase was crucial as the first starting point, to understand what happened in the setting. In order to comprehend the situation, the researcher provides the study context description and themes based on interviews with the participants.

2.1.1. Context of the Study

This section illustrates the conditions in the prison regarding TB program including TB care providers and their qualifications, implementation, and situations affecting TB care both in the prison and outside of the prison. TB care providers in the prison consisted of a physician, a nurse, associate prisoners, and NGO personnel. The general physician had been trained in TB diagnosis and medication based on the national TB program. She played a role as TB program coordinator from diagnosing TB, educating patients about TB disease and its treatment once prisoners were diagnosed as having TB, coordinating with all parties and managing the overall program.

The nurse (diploma in nursing) had been trained in the TB program. She conducted TB recordings and reporting by documenting data to be compiled at the city level and attended data validation meetings every trimester. She also provided TB injections for patients in category II. In terms of post-release referral, she informed referred patients' information to TB program supervisors at the city level to be continued to the referral services. Besides the nurse, there were two other nurses (diploma in nursing) who were trained in sputum fixation for TB diagnosis. However, they were not routinely involved in this program and the physician did not know how to engage them in the team.

Two associate prisoners as part of the associate prisoners in the health program were engaged in the TB program. They were trained in preparing sputum fixation and involved in the care by making sputum fixations to be sent to the hospital beside the prison, preparing and distributing anti TB drugs to TB patients, and performing TB screening for newly admitted prisoners and mass screening. In addition, NGO personnel assisted in sending sputum samples to hospital laboratories, referring patients to referral services, and following up TB patients in the post-release period. Besides these mentioned providers, all physicians, nurses, and associates prisoners in the clinic were involved in TB mass screening held once a year.

The sputum fixation is conducted in the prison by trained associate prisoners and the smear is sent to a hospital for the next process. For MDR-TB test, the sputum sample is delivered to a central TB hospital for further examination. The results are taken by the providers or facilitated by NGO personnel.

When a prisoner is diagnosed as TB, he is invited to the clinic so the disease and its treatment can be explained to him. Then he has to swallow the first lot of anti TB

drugs in front of the doctor facilitated by the treatment observers. To enhance uninterrupted treatment completion, the patient must sign a letter confirming that they will take the medication until it is completed. If not, they will be moved to other facility. For the next session of the therapy, the treatment observers deliver the medication to patients' cells or at another appointed place. Since there were two treatment observers, they shared the responsibility on different days. These observers documented the consumption by providing tick symbols in the documentation.

The treatment observers under nurse supervision also invite patients for scheduled sputum examinations to know about sputum conversion. The nurse documents the information on several forms and then enters the data into a computer. She also has the responsibility to attend a three monthly meeting with all services and providers for the TB data validation at the city level.

Moreover, a monthly health education session is provided (to TB patients for all TB patients in a big group. They are invited to the clinic to get information. The physician or NGO personnel delivers the message using a lecturing method. After the session, the treatment observers distribute snacks such as instant cereal or milk in sacchets. This reward is used to attract the prisoners to attend the activity.

In terms of the transitional care, the providers remind patients who have acknowledged their date of release to come to the clinic and get a referral letter and their remaining medication is sent to the referral services (PHCs, hospitals, or private clinics). NGO personnel usually facilitate the referral and follow up process by making an appointment with the patient in the referral service. In the referral mechanism, the nurse sends the patient information to the local TB supervisor at the city level to be proceeded directly to the referral services in the same city or to other supervisors in another city or to another supervisor at the provincial level for treatment follow up to be continued with

the correct referral services. The nurse never directly sends the information to the referral services. Thus, before the study was conducted, the prison TB program staff had never received any feed back from the referral services. The procedure is described in diagram 4.1.

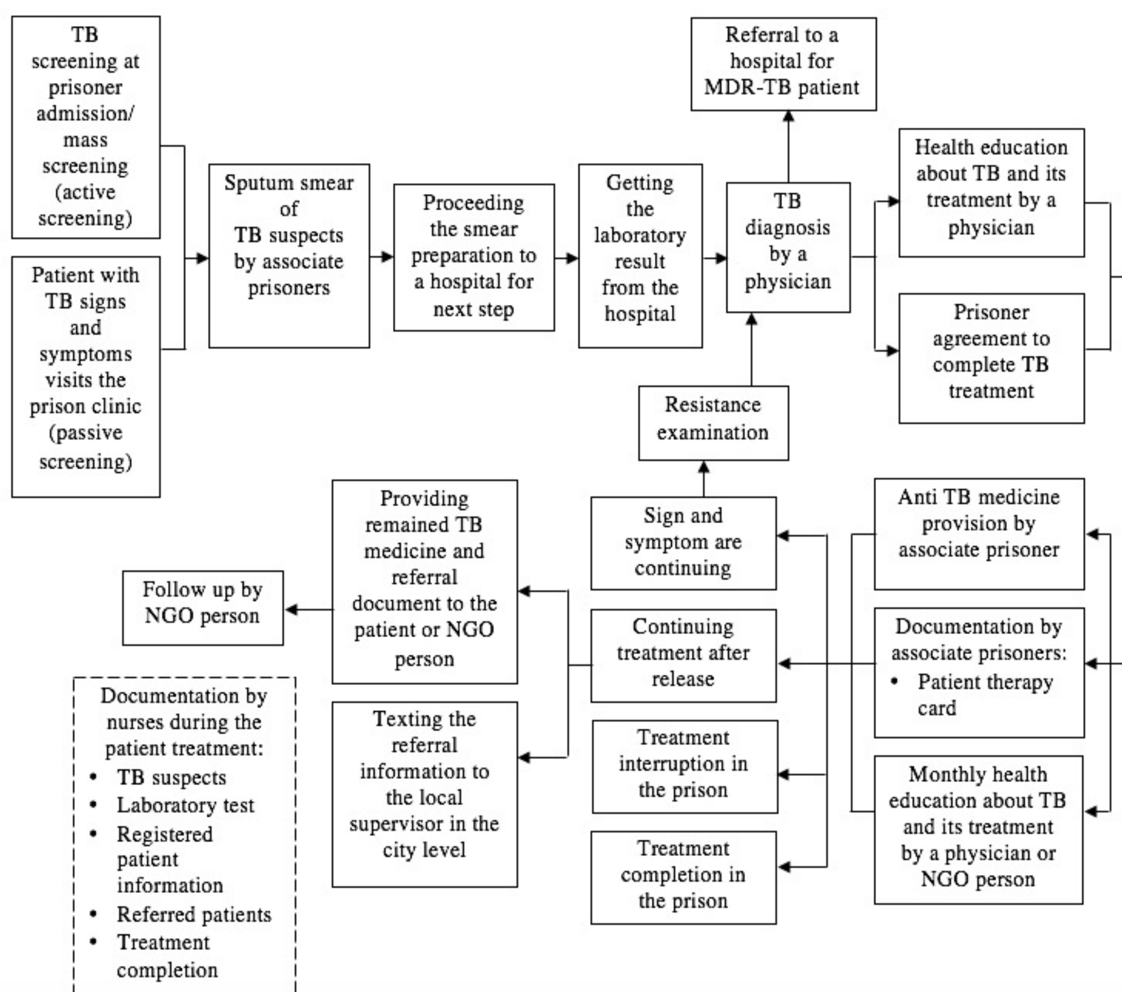

Figure 4.1 TB care in the prison before the study

Some conditions influenced TB program implementation in the prison. A rule was established by obligating prisoners to use appropriate dress such as using trousers if a passing security gate closest the most restricted area. Normally, they can use shorts in the restricted area. This was a barrier for patients to come to the prison clinic to get anti TB drug so the medicine was delivered to the patients in their cells by the associate prisoners.

An unpredictable release date also affected the TB program particularly in the post-release period. This determined the final TB treatment period whether it is in the prison or in the community and the referral need. There are two types of release i.e. release on expiry date and release on license. The first category is for prisoners who are serving a jail term until their final sentence (sentence expired date). Generally, this date is an exact date and it is announced on a whiteboard in the administration room and it can be confirmed in the correctional information system. In the implementation, the time can be changed due to remission, however, sometimes some inmates are not discharged on the determined date. This may be associated with the prison system.

Another is release on license for those proposing release earlier after having served two thirds of their sentence periods. To get this release, prisoners have to pass several procedures with conditions. After all requirements and processes are completed, the prisoners wait for several months (usually three to four months) until the release date decree is published. To obtain this relaese date, an inmate's family or prison staff can check at the information desk at the front office.

2.1.2. Emerged themes

The emerged themes were categorized in two groups including situations and expectation of post-release TB care based on perspectives of providers and patients. The situation from providers' views consisted of: (1) losing contact with patients at the point of release due to unpredictable date of release; (2) rarely receiving reports back from the health center due to failure in the patient follow-up; (3) lack of employing any provider guidelines to facilitate TB completion; (4) perceiving post-release TB care is not the

prison authority; (5) prison officer uniform obscures nurse's identity; and (6) separation of TB care and Islamic services.

The situations based on patients' perceptions were: (1) feeling being isolated by others; (2) perceiving TB as prison disease; and (3) fear to meet people after release. The expectations based on both perspectives include: (1) expecting providers to supervise the medications in the pre- and post-release period; and (2) desire to recover from TB and looking forward to healthy living after release.

2.1.2.1. Losing contact with patients at the point of release due to unpredictable date of release

Lost patients occured in both types of release in which some prisoners recognized their release date and the remaining prisoners did not know about it. The physician complained that the patients were suddenly released before being prepared to be referred. She said:

> "That's the problem. Some persons knew the time they would be released. 'Your decree has been published'. However, some prisoners were suddenly released. So, some prisoners know their date of release based on decree and some of them don't…" (Physician)

The providers realized the situation when treatment-observers could not find the patients in their cells as described by the physician:

> "We just realized that the inmate was not there for his medication. The drug-observer said, 'Ma'am, X did not take his drug.' 'Why?' When we are visiting his cell, 'Oh, he was released.'…" (Physician)

The nurse counted the number of lost patients after release because they did not report when knowing their release date and the provider did not acknowledge it. She explained:

> "There were two or three persons lost this month because we didn't know, the decree had not been published yet, suddenly, today it was published, so they didn't report. Those who were released on an expired sentence, their decree was directly published and they didn't report as well. Three have been lost. During January to February around two or three, right? Mr. Sy… (Trying to count the number). Last time Mr. Sy. Oh No… From December, there are three." (Nurse 1)

2.1.2.2. Rarely receiving reports back from the health center due to failure in the patient follow-up

Furthermore, the provider rarely received reports back from the health center. There are two types of feedback from referral services which must be reported back to the correctional facility including responses stating the patients visited the services (TB09 form) and final treatment results (TB10 form). Generally, the healthcare providers in the prison do not receive those documents. The nurse conveyed:

> "The patient didn't report. The point is we didn't receive the TB09 feedback…. The TB10 was never been returned from PHCs." (Nurse 1)

It was confirmed by the NGO personel stating:

> "because the TB10 had not been returned yet… TB10 must be returned to the service, but in fact it wasn't." (NGO person)

Several situations were associated with this condition. There was no information regarding patient follow-ups since they were predicted to not visit the referral services. The nurse and the NGO personnel mentioned:

> "Most do not go back because if the prisoner is now a civilian, he is not a prisoner, so he does not feel like going back to the PHC. Usually, but not all PHCs receive the TB09 form. Most of the released prisoners rarely report to the nearest PHC." (Nurse 1)

> "I am most resentful when we had an appointment (in the referral PHC) and, they didn't come. I have to be patient." (NGO person)

The patient did not continue visiting health services in the post-release period also because of using illlicit drugs. The nurse narrated:

> "His mom went to the PHC, she told them that he used alternative medicine. Feeling better, healthier, and finally passed away. When searched for information, in fact after he started using opiates again, he stopped his therapies." (Nurse 1)

A patient predicted this condition as well by conveying:

> "If he's using illicit drugs again, perhaps he doesn't feel like taking the medicine." (Patient 6)

Additionally, re-arrest was a reason why the TB patient did not come to the referral service. The NGO person got a report from a nurse in a referral service as follows:

> "… thirdly, he was re-arrested… for example, if there was a prisoner who was

arrested, I asked for confirmation. Just like a case in a PHC, he was HIV only, no TB. But when he was arrested, the nurse in the PHC directly contacted me because that person was re-arrested." (NGO person)

In other situations, TB patient follow-ups failed due to invalid addresses and phone numbers of the patients and their families. The nurse and the NGO personnel complained about similar situations.

"For most patients who would be released, their addresses were not valid. It isn't a fixed address because usually they rent a house. They said this was their address, but after release they never returned to the address. Most are like that, false address." (Nurse 1)

"At that time, there was an MDR-TB patient. For the patients from outside this province, such as City Y, W, Z, administratively he was a patient of this prison. However, he was located in Hospital X. When he would be released, we coordinated with Local Health Departments of city X and Y, and a PHC in City Y, and Parole Y; so many parties. However, finally the patient was lost. First, it was because of the address. So, the patient was moved." (Physician)

"Usually, if they had discontinued like that, I never followed up based on the address, because from my experience, I was tricked with an invalid address. The number was valid, but the RT and RW (sub district numbers) were invalid. The last time when I went to the field, I was shocked because it's a luxurious house. Actually, he was a poor person. It means that the prisoner didn't want to be traced." (NGO person)

The NGO person also shared her experience in following up patients by phone and found that it was an invalid number. Sometimes, it could be connected when the patients were still in prison. However, it could not be connected after they were released. She said:

> "For example, we borrowed a nurse's mobile phone, when he was in prison (mentioning another prison institution). I called. It could (connect).... He couldn't lie. He must provide it. But, after being released, it's cut. If not, it's turned off. Perhaps, it's his mother's phone or whatever. I don't know. It's not connected. The point is that it is not connected. Sometimes... *toolaaleeet.... toolaaleet....* Disconnected...." (NGO person)

The limited response from referral services was associated with the lack of communication between the providers in the prison and in the community. The nurse mentioned:

> "We never got any response or feedback from the PHCs and the related institutions never provided the feedback to us.... We never directly referred to the PHC, we reported to the supervisor." (Nurse 1)

The physician mentioned:

> "The feedback is on the TB10 format, isn't it? Maybe from the PHC itself, I also never asked why they didn't give feedback yet. I also forgot to ask them because mainly they finished their treatment in the prison." (Physician 1)

2.1.2.3. Lack of employing any provider guidelines to facilitate TB completion

The physician and the nurse claimed they did not have any detailed guidelines for the pre- and post-release periods for TB patients who should continue their treatment after being released to facilitate the treatment completion. They compared the TB program with the HIV program which has clear mechanisms. The physician stated:

> "Regarding the pre-release, it is not in detailed like the HIV program. So, anybody can do it. It could be me or N_1. So, even now, it has not been thought through." (Physician)

The correctional nurse described an experience of ineffective guideline implementation particularly in TB medicine logistic management. Ideally, one box of the medication should be provided for one patient. However, in the execution, the drug observers distributed one package for all patients and the nurse did not supervise it.

> "…. until yesterday, I really felt that I do not really monitor the situation well. One time I asked, 'Where are the drugs? Are they finished?' I learned that instead of giving a single box of medications to one patient, the medications were distributed to many patients. Recently I reorganized everything (pointing to the lower part of a drug cupboard)." (Nurse 1)

In the post-release period, the healthcare providers in correctional facilities also mentioned that they do not have a detailed program compared with the HIV program which includes parole board involvement. The providers have tried to involve the parole boards. However, the mechanism was still not clear yet.

"… it is not specified for TB, compared to HIV, and working collaboratively with the Parole Board…. We've never dealt with the mechanism yet because we were still in a meeting in our office at that time.…. At that moment, Parole X (mentioning a parole institution) asked about the process for the patient in order to continue his treatment. The parolee's enthusiasm is good, but, how about the mechanism? What kind of record?" (Physician)

2.1.2.4. Perceiving that post-release TB care is not the prison authority

The nurse perceived that the healthcare providers in the prison did not have authority to intervene patients in the post-release period. She considered that interventions from the healthcare providers in the facility can impact on psychological trauma for ex-offenders. She said:

"Prisoners are directed in prisons, however after release they aren't prison authority anymore. … It is not our policy to follow up… According to bureaucracy, we cannot intervene… If there is a prison staff monitoring an ex-prisoner, he will feel that he has not been felt totally free. So, psychologically they still have a traumatic feeling." (Nurse 1)

2.1.2.5. Prison officer uniform obscures nurse's identity

The nurse was confusing with her identity as a nurse working in a prison. The nurse assumed this feeling was because she wears uniforms that are similar with other prison staff. This situation built her thought and attitude to treat patients as directed persons like other prison officers command offenders. On the other side, prisoners also considered nurses as other prison due to the uniform. She said:

"…. it is not called like a nurse but an officer. Because they considered us, 'the uniform is like that'…. the patient, the prisoner, I think prisoners are directed persons. Then, they consider us not as nurses or physicians, but similar... similar with other staff. Perhaps that condition, right? The system, right?" (Nurse 1)

In an observation, the researcher found the nurse treated patients as her subordinates. She punished a patient who came late in getting his treatment.

"At 11.30 a.m., a methadone patient came requesting his treatment on that day. However, Nurse 1 got angry because he came late to the clinic. Nurse 1 instructed him to do push-ups 20 times with a sullen face but he refused it. Then she punished him getting him to help an associate prisoner and would provide his treatment after finishing it." (Field note)

In addition, the nurse also associated her opinion with her initial working experience in the prison. She was allocated in the Guard Division performing identical responsibilities with the other staff there during three years so the nursing knowledge was useless. She mentioned.

"Initially, I am in the Guard Division. Not here, from 2006 to 2009, then moved to the clinic. Yea.... Yea... Not like (treating) general patients suffering a disease, this... this... working here, nursing knowledge is useless. For the first three years, because in the Custody Division. The job was only frisking stuffs, bodies. After 2009, I moved to the clinic." (Nurse 1)

The bias identity could be caused by unclear nursing responsibilities in caring patients. The researcher documented the nurse's job description and found mostly her responsibilities were in the documentation and technical procedures.

> "Every nurse has different job description. It depends on her/his involvement in a program however generally nurses perform similar jobs including task number 9-19: (1) Making report of monitoring and evaluation Global Fund, (2) Making report of Integrated Tuberculosis Information System, (3) Documenting and reporting TB01, TB03, TB 05 and TB06, (4) Directing Treatment Observers, (5) Conducting TB and anti TB drug counseling, (6) Making report of TB-HIV reports, (7) Sending and taking sputum fixation results to Hospital X, (8) Performing TB and HIV screening, (9) Performing evening and holiday shifts, (10) Performing outpatient care in the clinic, (11) Performing observation of patients in the clinic, (12) Conducting nursing care, (13) Conducting methadone program service, (14) Making nursing documentation and nurse shift report, (15) Making investigation news events of new inmates, (16) Conducting patient referral to outside of the prison, (17) Conducting urine test, (18) Involved in visitation activity to cells of the prison (visitors' body inspection and registration), and (19) Making death certificate and introduction letter." (Field note)

There was only a statement mentioned "conducting nursing care" which was considered unclear compared with physicians' roles and for TB care was taken care by the physician. She conveyed:

> "Here, we have service SOP (Standard Operating Procedure). Medical services, doctors and nurses together. It doesn't tell that nurse job description is bla... bla.. bla... Fortunately, all patients were taken care by dr. D1" (Nurse 1)

There was also a misconception about counseling. The nurse considered counseling is health education by providing information about TB and emphasizing on the treatment interruption consequences. She said:

> "More emphasizing on repeated counseling…. what TB is, the disease spreading, then perhaps the risks if he doesn't complete consuming the drug because if he doesn't complete consuming the pills, additionally, he gets injection, if the injections are not completed, then he has to consume TB-MDR drugs which is for two years. It's more emphasizing the risks if he doesn't complete consuming the drugs in this first month of therapy, the risk if he doesn't continue the treatment again. Education is similar with the adherence, right? Perhaps more asking the problems why he doesn't consume the drugs, then whether there are side effects or not, then the risk if he doesn't consume the drugs. Yeaaa… the risk again. So education again, right? Then, if he doesn't consume the drugs will spread the disease to friends and TB rate will increase." (Nurse 1)

2.1.2.6. Separation of healthcare with Islamic services

Based on the researcher observation, mostly religious activities were conducted at a mosque in the restricted zone whereas the researcher could not enter the area but the action can be recognized by loud speakers. The figure 4.1 shows there was no spiritual program for TB patients in the prison.

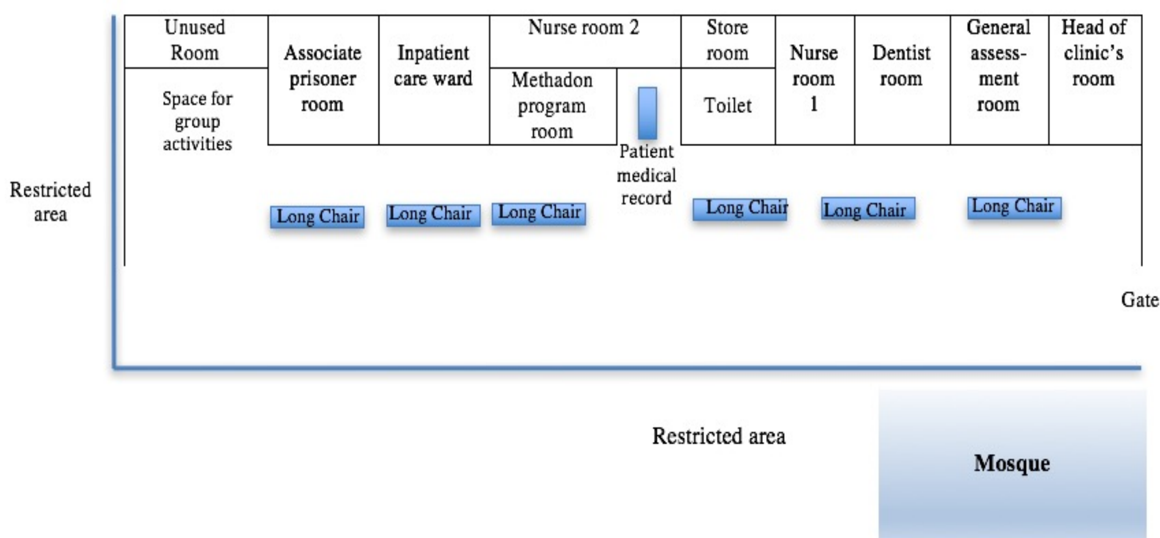

Figure 4.2. Location of the clinic and the mosque

The researcher also met a prison staff in the Division of Guidance and Correction and discussing about Islamic religious services in the prison. He said that the activities conducted in the mosque and facilitated by two Islamic leaders from outside of the prison and him. The researcher noted this in a field note:

> "In the building 2, I met Mr. F who was one of two staff who manage Islamic services for prisoners (*Santri* Program). I asked about Islamic services in the prison and he explained that the activities included prayers, learning to read Al Qur'an, and regular Islamic preaching by two Islamic leaders from outside of the prison. Those activities are conducted in a Mosque.... At the prayer time, I heard a prayer calling sound from the mosque loud speaker." (Field note)

2.1.2.7. Feeling being isolated by others

Several participants complained social isolation from their peers by avoiding sharing cigarettes, snacks, and drinks with them.

“There are so many excommunications, Mam. Feeling isolated, Mam, from friends, from the environment of who used to smoke together…” (Patient 6)

“Yes, there are some friends who are like that, Mam. For example, if I have a snack or drink, they used to say, ‘Please share with me, Patient 7.’ Now, they don’t pay attention to it. Additionally, there is a friend keeping a bit of distance from me.” (Patient 7)

2.1.2.8. Perceiving TB as prison disease

The prisoner believed that he got TB because of inadequate nutrition and rest in the prison. Therefore, they will free from the disease after release from the prison. A treatment observer described an experience of caring a patient who perceived he got TB because of imprisonment by mentioning:

“From many prisoners such as USN (a patient’s name) if I asked like that, ‘It’s because I’m incarcerated here, I got the disease, I won’t get this outside... I will be healthy outside.” (Treatment observer 2)

A misconception about post-release TB treatment occurred whilst a participant believed that he will free from TB and does not need medication after release. He considered that adequate nutrition is enough for TB treatment. He said:

“I’m really sure if I don’t need to take the medicine outside, just have routine meals because here…. Perhaps it’s my perception, in my opinion, eating is enough, not like this. […] I mean probably I don’t need to take the medication outside because there is a belief of being recovered.” (Patient 8)

2.1.2.9. Fear to meet people after release

In a meeting, a patient expressed his concern to meet people after release including his friends and relatives although his wife encouraged him. He also complained insomnia. In a moment, her wife argued with him because he did not want to go to the referral sevice. The researcher documented in a field note:

> "Patient 9 said that actually his wife had encouraged him but he was still afraid to meet people. Patient 9 stated that now he rarely went outside and joined with his friends. He afraid if his aunt will be angry with him. Moreover, patient 9 complained experiencing insomnia. When I asked the cause, he think that it is because of too much thinking." (Field Note)

2.1.2.10.Expecting providers to supervise the medications in the pre- and post-release period

The patients expressed their expectations regarding the nurse's roles in ensuring the treatment completion. Some patients expected the providers to directly monitor their health and treatment from the pre-release period.

> "I expect to be supervised every day, asked about my condition... Don't only the associate prisoners who delivering the medicines. Asking... In fact, only providing medicines, medicines, and medicines. Not asking, 'How are you? What happened? What happened? What is your complaint?' Not asking like that." (Patient 6)

> "Right, asking about our condition. Associate prisoners only delivering the medicines, 'Here are the medicines... Here are the medicines...'" (Patient 7)

The NGO person expected the physician to take responsibility to supervise post-release TB treatment completion. She said:

> "There is the responsibility of a physician when providing medication. The responsibility is what strategies are there for prisoners in order to continue their therapy outside…. I said it like that but it's supervised. Whatever, the physician has to know." (NGO person)

In supervising, she also revealed a recommendation to maintain communication among the providers in the prison, the NGOs, and those in the community to ensure patient TB treatment completion.

> "The point is networking, a communication because if there is not communication, it must be no….. For example, I refer and there is communication and the prisoner discontinues his therapy, she must contact me because I will pursue him so I don't lost contact." (NGO person)

This was in accordance with the nurse's expectation to have collaboration with the NGO in following up patients in the post-release period by stating:

> "My expectation is we can manage these released patients with the institute (NGO). Do they take the medicines or not? Finished or not? There is a follow up for the released patients….." (Nurse 1)

2.1.2.11. Desire to recover from TB and looking forward to healthy living after release

All patients have a desire to recover from the disease, be healthy, and not spread the disease.

"At least I'll be healed. I can be cured. My expectation is that I can be healed, and have a healthy body." (Patient 1)

"I want to recover.... because I don't want to spread to my family, Mam. How a pity... My parents have been old." (Patient 3)

"The point is I don't want to spread the disease to my family. Let it be only me who being treated." (Patient 7)

The same expectation was expressed by the physician:

"... keep preventing to spread risk to others. Live healthy, so it doesn't develop to be more severe, such as category II or MDR-TB..." (Physician)

All prisoner-participants expected to complete TB treatment by continuing the therapy after their release from the prison.

"I plan to continue my medication near my home, Mam. I will ask for a referral letter from here, I will continue at home.... If Allah wills it, it will be completed, Mam." (Patient 3)

"I want to continue, Mam. For myself, I want it, so I get a referral, being referred

to the nearest PHC…" (Patient 6)

The providers in the prison also had similar expectations. The nurse and the physician expected the patients to continue consuming anti TB drug after release.

"The patients routinely take the medicines." (Nurse 1)

"For the patients here, we expect that will be continued outside." (Physician)

2.2. Spiral action research process to develop the Islamic-Based Nursing Support Model

The model was developed based on the research question: What is an appropriate Islamic-based nursing support model to enhance TB treatment completion in drug users after release from a male prison in Indonesia? In this section, the researcher reveals findings in the process of the tentative model development after understanding the situation of prisoners' TB treatment completion after release. It consists of three cycles: (1) building nurse-prisoner trust using Islamic reflection and completing the existing pre- and post-release TB care procedure; (2) integrating spiritual value in TB care; and (3) engaging related parties in TB care.

2.2.1. Cycle 1: Building nurse-prisoner trust using Islamic reflection and completing the existing pre- and post-release TB care procedures

Based on the situation in the reconnaisance phase, the unpredictable release date became the major problem since it is an entry point to determine settings where the patients accomplish their TB therapy whether it is in the prison or the community. The

participants considered this as an urgency to deal with the problem by adding some activities.

2.2.1.1 Planning

Three themes emerged in this phase including: (1) clarifying job description of TB care providers; (2) identifying release date and post-release information; and (3) modifying wrong perception about TB and its treatment. Firstly, the providers agreed to clarify TB team job descriptions consisting of patients' initial therapy education by the physician, the pre and post release program by a new female TB nurse (Nurse 2), laboratory by a male nurse, and recording and reporting by Nurse 1. Since Nurse 2 was still on maternity leave and would not be available in the next three months, her job would be taken in part by Nurse 1 first. The physician declared her job in the beginning of TB therapy from disease diagnosis and initial treatment education. She mentioned:

"I'm in the beginning section of therapy..." (Physician)

Then the nurse proposed other personnel's duties. She mentioned her job in collecting and recording data in the TB program.

"I take part in collecting data. Recording all data. It means that I'm in control checking." (Nurse 1)

They also identified several personnel to be in charge in the TB pre- and post-release program. Finally, they agreed to select Nurse 2 to be the person in charge. The nurse conveyed:

"Nurse 2…. Never mind. Just leave first. After that she will be involved in the TB team all out. …. for preparing the drug and stuff for referral as she can, Okay? It should not be Nurse 2 as well. The 09-form (for referral) for patients in pre-release period can be provided by Nurse 2. If Nurse 2 is not available, we can handle it, as we can." (Nurse 1)

Secondly, some information is important for the nurses to ensure patients' TB treatment completion. It includes release date and post release information (phone numbers and addresses of a patient's family, the nearest PHC from a patient's home, and the referral providers' contact numbers).

In the beginning of the therapy, the providers should identify a patient's release date in the registration division (for those who are released on the expiry date) or from the front office (for those who are released on license). This is aimed to predict patients' final treatment result settings whether it is in the prison or after being released. The prisoners' release date will be fixed after a decree about this has been published. The physician explained the procedure to identify the date by mentioning:

"…. We have to go to the front office to identify the resources from the decree (of date of release)." (Physician)

This activity was planned to prevent lost patients in the date of release. The nurse mentioned "pre-release program" in terms of preventing lost patients in the date of release.

"In order there is no lost patients anymore in the pre-release program." (Nurse 1)

Other crucial information is to get patients' post-release information including their families' phone numbers and addresses. The nurse also considered the nearest PHC from a patient's home as a referral service and the provider's contact number as important data to support the communication among them. She said:

> "Getting a family's phone number and address… where is the nearest PHC...." (Nurse 1)

She described the method to get referral providers' contact numbers particularly in the same city as the prison by asking for a list in the network meeting.

> "Actually network strengthening is held every 3 months for this city area, so we can obtain the contact numbers." (Nurse 1)

The last strategy was modifying wrong perception about TB and its treatment. A participant suggested providing education to provide understanding to TB patients.

> "… if you provide health education, give suggestions so they can understand. For those who don't understand so please inform them here, invite them here, provide understanding, say something..." (Patient 8)

The physician also suggested an interesting and effective strategy for patients by conveying:

> Yea... It means that the education must be more interesting and how to hit the mark." (Physician)

The participants identified the education content involved about TB such as the effects and treatment of TB as mentioned by a patient:

> "…. if not, they don't understand the effects in the future. Additionally, when can we get an opportunity to get free medication? Right? Because here is an opportunity to get free treatment" (Patient 8)

The physician considered post-release activities regarding TB therapy as one of the contents so patient completely understand. She said:

> "It means that health education is needed about post release activities…. Yea... provide education, so they know everything about TB, basic TB and the treatment….." (Physician)

2.2.1.2 Enacting and observing

The new themes that emerged in this phase was building nurse-prisoner trust using Islamic reflection. This theme consisted of two sub-themes including re-orientating Islamic values to emerge an awareness of being a nurse and identifying the gap of Muslim nurses' attitudes and behaviors.

To establish it, the researcher conducted a dialogue with the TB nurse (Nurse 1) to balance power between the nurse and prisoners. It is crucial to eliminate prisoners' fear of being oppressed. The researcher began the stage with a question about factors that might influence patients' routine anti TB drug consumption in the post-release period. She stated that prisoners' post release TB treatment completion was the responsibility of nurses in the community, so the researcher continued with a dialogue to bring her awareness out regarding the issue.

The researcher continued with an re-orientation of Islamic-values particularly about the life purpose and the equality of human being status in Islamic perspective. Initially, the nurse mentioned her purpose of life and working. She said:

> "My life purpose is to be a good mom and wife.... (Working is) to make money, implementing knowledge, in order to be responsible. Right?" (Nurse 1)

The researcher re-oriented her with the Muslim's life purpose based on Al Qur'an, and she answered that the goal is worshiping Allah. Then, the researcher explained that every activity in life should be linked with the Muslim's life goal and finally the nurse mentioned it.

Next, the researcher proceeded with exchange perspectives about the nurse-client relationship situation in the prison associated with the inadequate TB treatment performance of prisoners. The researcher reflected her role performances in the TB program and the effect on patients and compared these with ideal situations.

Then, the researcher let the nurse to analyze the situation and it resulted in her conclusion that "closeness" lead to "trust" that has never been built due to "the uniform" indicating oppressed feelings from "officers". The term "officers" refered to correctional staff who caused prisoners to feel "afraid" or insecure. She revealed:

> "What are they? (Thinking). Is it closeness? Trust? If they don't believe us, they won't take the medicines. But, trust is for exploring, right? We haven't built it yet. I mean assessing the patient, right? Whether he takes the medicines or not, because of consuming the drugs, and see what problems have to be dealt with. Never do it.... So, what is trust for? I wonder if they are afraid that officers will

oppress them or something. Sometimes they are also introverted with us." (Nurse 1)

In responding with the nurse-prisoner trust issue, the researcher stimulated with an issue of the equality of human being status in Islam and the nurse realized the difference feeling of being a correctional nurse compared with those who work in hospitals. She reflected:

"Yes, it's true, for society, TB patients as well. I think for hospital, and prisons contexts.... For prisons and for hospital contexts, it is very different. It's impossible to be similar, completely different...." (Nurse 1)

After the dialogue, the researcher facilitated the providers in the implementation of strategies in the planning step. In clarifying the job description of TB care providers, the physician conducted a meeting to discuss the provider's job description in the TB program. Then the researcher drafted the pre- and post-release procedure of the TB program in the prison with a role explanantion of each party and asked for comments from the physician and the nurse in the prison as described in the figure 4.3. The researcher also explained the mechanism to the new nurse (Nurse 2) after she was active in working in the prison. They agreed to implement the procedure with the TB patients who would be released.

"Next I met Nurse 1 to discuss pre-release mechanism that had been confirmed by the physician in the previous meeting. After she understood, I asked about the implementation. We agreed to apply the mechanism to Patient 4 and Patient 5." (Field note)

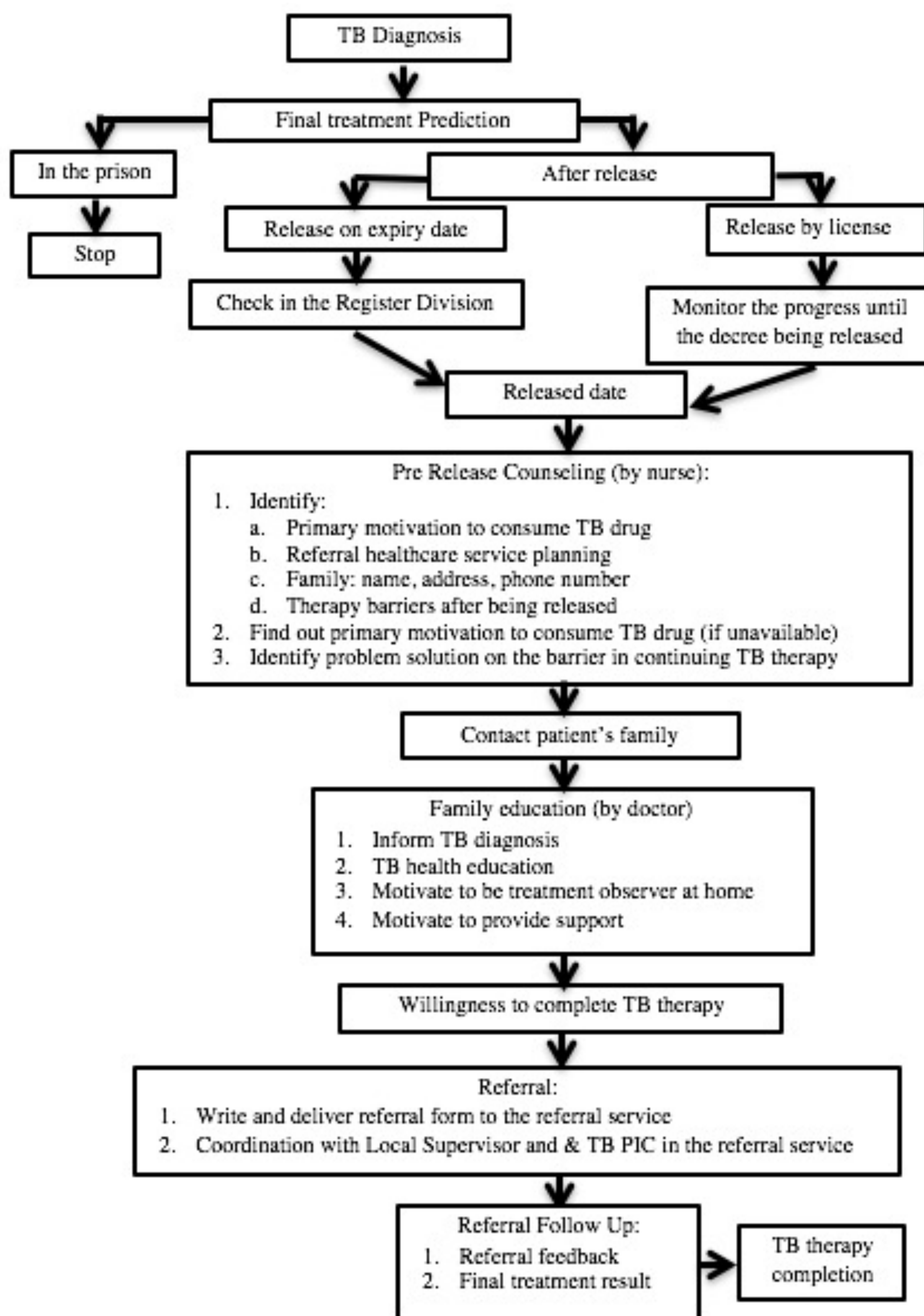

Figure 4.3 Pre- and post-release TB treatment procedure

In identifying patients' release date, the healthcare providers and the researcher coordinated with the Registration Division and Information Center at the front office to identify several participants' release dates.

> "I went to the registration division to get information about Patient 6's release date in the Building 2. I introduced myself and explained about my study to a female staff in this. division. Then she asked me to get permission first from the head of division who sat next to her desk. After getting permission, I went back to her and she required a male staff to facilitate me by looking for the data in the correctional information system. After it was checked, apparently the data was not updated with the last remissions (the independence day and decade remissions). So, she instructed a prisoner who helped in this division to check from the documents in a cupboard. From the Patient 6's document, I could acknowledge his exact date of release that is 11 November 11 2015. The female staff wrote the history of remissions on the participant's print out demographic data from the correctional information system that I had." (Field note)

The nurse also identified patients' post release information such as the plan. It was implemented for all patients.

> "Nurse 2 asked about his family phone number and he asked how if he provided it a moment before being released, but Nurse 2 requested it now. Patient 9 mentioned several numbers and while remembering. Nurse 2 questioned whose number it was and Patient 9 said that it was his wife's number." (Field note)

In order to prevent having received invalid data from the prisoners, the researcher cross checked the participants' demographic data with the prison information system.

> "Today, I had agenda to confirm some demographic data of Patient 5 with the correctional information system. The data were important to follow up the participant after release since he did not have any family phone number and he did not know about his family condition including their phone number because they never visited him during incarceration period. I asked print out of Patient 5's data from a computer in the head of clinic's room facilitated by the physician and the treatment observer 1. I got the data about the participant address, his family's phone number and names including his mother (Mrs. N), brothers (Hs, Dn, and Yn) and sisters (Hn, Hr, and Md)." (Field note)

Besides, the participants also provided information about the nearest PHC to their home. Since prisoners in the prison can be released to other cities, the researcher collected information about all PHCs in those areas including names, addresses, and phone numbers and provided them to the nurse in the prison.

> "After that, I provided some files containing of healthcare service lists including clinics and PHCs in the city and other city around it. Mostly prisoners are released to the regions." (Field note)

This will be useful for the providers to follow up the referral and post-release treatment continuation. While waiting for the new nurse to become active, the researcher facilitiated the nurse in gaining this information by asking what kind of barriers can influence prisoners' TB treatment completion after release while interviewing them.

The modification of wrong perception about TB and its treatment was conduct by providing health education in two groups of TB patients. The group education was delivered in a two-way communication. The physician responded the patients questions about his disease and therapy. Some participants actively asked about his condition.

> "The physician provided other opportunity for those wanted to ask. Because of none asked, she stimulated with several questions. Firstly, how long do the TB treatment duration? Mr. K answered it is 4 to 6 months. The physician emphasized that all patients had a contract with TB program to complete the therapy at least six to eight months." (Field note)

2.2.1.3 Reflecting

The main outcome of the cycle is the return of a nurse's identity, professional relationship between TB nurses and prisoners, clear TB nurse's job description in the prison, the health education method modification, and increase patient's knowledge about TB and its treatment.

A nurse re-gained her identity as a nurse after a dialogue with the researcher. She mentioned:

> "It will be different in my home. If my neighbor is sick, asking for blood pressure measurement, 'What is your complaint? This is the drug.' In that moment, I feel the soul, 'I'm a nurse. I can cure this…' But here, if we have use the uniform… yes, Sis, right!!! (Yealing and laughing)" (Nurse 1)

The dialogue impacted on the nurse's awareness of her identity as a nurse. She tried to change her communication style to the inmates to be closer to the communciation style

used with patients in hospital. In the observation, the researcher did not find any moment when the nurse snapped or punished inmates anymore.

In addition, the researcher observed a nurse-prisoner interaction after a health education. The researcher found there was no over power relatioship between Nurse 2 and Patient 9. The patient can freely expressed his thought and asking the nurse without fear. In a field note shows:

> "After the activity, Nurse 2 offered a pre-release preparation to me for one of the group members today Patient 9 because she invited him twice and he did not come. I agreed with her and she called him. The nurse asked why he did not meet her when she invited him. The patient said that he was anxious. I in-depth this answer, 'What was going on?' The patient responded that he felt anxious due to uncertainty regarding his released date. Then he asked about how long he had to consume the red pills. She read his medical record and said that he had to perform this until 31 January 2016 and it would be changed to yellow pills consumed three times a week. The patient asked about his TB category. The nurse checked it in his medical record and stated that his TB was extra pulmonary TB." (Field note)

There is now a clear job description for each personnel member in the prison in the pre and post release program. A new nurse has been allocated to handle this activity including referrals and the other nurse works in recording and reporting. A nurse mentioned:

> "The pre-release is Nurse 2's job." (Nurse 1)

Additionally, a new nurse in the pre and post release program played a crucial role in monitoring patients' treatment progress until completion. In several meetings and observations, the nurse had utilized a monitoring book. The physician also expressed that the nurse updated the pre and post release data of new patients. She conveyed:

> "Now, she handles the pre-post release program so every month, she can update the data of new patients, their release dates, etc." (Physician)

Other outcome is the modification of health education method. The providers changed their health education method from lecturing to discussion. In the activity, the physician stimulated with questions and responded the prisoners' existing knowledge with the correct information. The patients were actively involved in it. The field note showed:

> "The physician continued with a consideration that in TB therapy they had to consume big pills contained of four kinds of medicines pressed into one pill. Then she reflected to Mr. L which one better consumed 4 or 12 tablets and he answered 4 tablets. Then he asked is it okay if he had candida in his mouth? The physician said that was no problem and she asked about his candida medication using drop or oral medication. Mr. L told that he had not received any treatment yet for this because the medicine was not available. She encouraged them to have motivation in getting treatment not because she stalked them or Treatment Observer 2 distributed the drug." (Field note)

The final outcome of this phase was increase patient's knowledge about TB and its treatment. In the evaluation, the physician evaluated the some knowledge and behavior

of the patients attending the health education and they could answer correctly as shows in the following field note:

> "Next the physician asked whether TB is a transmitted disease or not. Most of participants said that it is a transmitted disease. She continued asking how about the mechanism and the participants mentioned by air. She emphasized that was why they had to use masks and close mouth and when coughing or sneezing to prevent transmission. She pointed Mr. H to demonstrate it. Mr. H closed inside part of his shirt and his sleeve to his mouth." (Field note)

In this phase, some conditions were identified to be considerations in the next planning stage. These included the uncertainity of prisoners' dates of release resulting in false predictions and lost patients in the pre-release period. The wrong prediction about the date of release was experienced by several patients. For instance, Patient 2 had a three month additional sentence due to an unpaid fine.

> "I asked information of Patient 2 release date in the information desk and the data showed that Patient 2 would be released on 19 October 2015. It means that he will finish his TB therapy in the prison." (Field note)

The wrong prediction of date of release also occurred in Patient 3 because the date that the physician had obtained from the Registration Division was different to the data the researcher got from the Information Center.

> "When I saw the physician, she showed a list of TB patient's released date for the register division. However, when I matched Patient 3's released date (15 November 2015), it did not match with the data from the information desk in the

front office (20 October 2015). I said that I might happen because the data from registration may not be updated with the last remission. Moreover, it also did not match with the fact that Patient 3 will be released tomorrow." (Field note)

Moreover, a patient loss was identified in a discussion. Providers had not recognized his referral process. A treatment observer mentioned that he realized that the patient brought his remaining medicine in a red plastic bag. He said:

"In the afternoon, he was still in the society guidance division. He went out from here at 10. He has brought the medicines. 'Have you completed them yet?' 'Already.' There was the box. That was Monday." (Treatment observer 2)

However, none acknowledged the provider providing the referral document and the remaining drug. The providers in the prison did not know how to follow up the patient.

"He didn't report first as well… We don't know the staff member who provided it?" (Nurse 2)

2.2.2. Cycle 2: Integrating spiritual value in TB care

The themes emerged in this cycle included: (1) stimulating with the issue of discontinuation TB consumption and (2) motivating patients to return to Allah's path.

2.2.2.1. Planning

The providers considered an urgency to enhance patients' awareness by looking for a strategy to find out patient's turning point of change. They explained a patient who

finding his turning point from his dying experience. A treatment observer mentioned:

> "Patient 3 wanted to be like that because he experienced critical situation in his life here, he said that he wants to be alive. Additionally, before going home, he said that he wants to go home soon, go home soon. I thought that he wants to commit suicide, or want to die. Because if someone says like that, he will pass."
> (Treatment observer 2)

The physician agreed and committed to find the best way to change patient's point of view using Islamic approach. However, she questioned a person to perform it. She said:

> "Right, if they haven't critical period, they haven't aware to take medication and not continue consuming the medicine. Never mind…. Everything we try to get success. But, who will implement this, such as know Allah and so on, who will provide it?" (Physician)

Based on prison staff in the Guidance and Correctional Division and the participants' agreement, a *santri* was involved to provide motivation in completing TB therapy as a part of the education for TB patients. *Santri* was an associate prisoner involved in the Islamic education program in the prison and was considered as an Islamic Leader who provided Islamic teaching to other prisoners. The physician said:

> "Okay… there will be an invited person (Islamic leader) to provide materials. So, there may be contents including Islamic knowledge..." (Physician)

2.2.2.2. Enacting and observing

Two themes emerged in this phase including: (1) stimulating with the issue of discontinuation TB consumption and (2) motivating patients to return to Allah's path. An Islamic group discussion was conducted to implement the planning. The researcher communicated with a prison staff member who was in charge in of the *santri* program. A *santri* was involved in the group activities to motivate patients in continuing their therapy by discussing several values in Islam.

Firstly, the physician stimulated with the issue of TB treatment completion to relate it with Islam. This strategy was also to create an interactive atmosphere in the group activity.

> "The physician stimulated the participants with a question, 'Have you thought to stop consuming TB drugs?' Most patients shook their heads. She motivated patients to keep trying to complete their TB treatment and have consultation with physicians and do not give up. Because of no participant shared his experience voluntary, so the researcher stimulated with a question, 'Among you, who ever thought to stop the treatment?' Then a participant raised his hand and told that he ever thought to stop his therapy and did not care with what would happen if he did it." (Field note)

Secondly, the *santri* responded the issue by providing motivation to the patients with several Islamic value. He pursuaded them view negative situations during the TB treatment as positive ones based on Islamic teaching. For instance, a condition when a patient experiences excommunication from other inmates. The santri responded to it with

an Islamic value to change the patient's point of view and the physician also agreed with this.

> "The *santri* responded this by sharing Islamic values including it is better to be excommunicated by human beings than Allah, it is a similar situation whether being praised or insulted by human beings, just strengthen our selves, and do not quit from preaching so our heart is fragile." (Field note)

In the another Islamic group discussion, the physician also supported these values.

> "The physician motivated the patients to keep on the right path in good and bad situations and we should not think too much about other people's judgements. A person can provide a wrong opinion and we only need to prove the truth." (Field note)

The *santri* tried to change patients' negativism into the opposite views by thinking positively to Allah.

> "He also suggested believing that every determination of Allah is good for His creatures. He conveyed that Muslim must be grateful for Allah's determination and have positive thinking in every situation including sickness. The *santri* expressed perhaps if we hate a thing and it is good for us and if we love a thing and it is bad for us. Allah knows. Sickness also a good condition because it can remove our sins." (Field note).

He also encouraged the patients to reflect their positive minds to their life by making changing in life and do not do nothing because surrender in Islam means keep struggling in dealing with many challenges.

> “The santri recommended the participants make a change (with expressed that to be optimistic needs to also be expressed in the deeds ones. Because Allah shall not change or cured if we do not change our fate. Allah shall not change our fate if we do not change. Surrender in Islam does not mean to resign but keep making efforts with optimism.” (Field note)

2.2.2.3. Reflecting

There were several outcomes and barriers identified in the cycle. The first outcome was Islamic belief using in life for prisoners and providers. A patient reported his belief after the religious activity:

> “I asked his belief about Allah existence. He said that he believed it. He also believed that Allah will not provide a test more than one bear and it is the best condition for him. I revealed a value that Allah will not change anyone’s fate if he does not change he does not change.” (Field note)

In the Islamic group discussion for TB patients, the physician concluded that providers also need to be patient in caring patients with all challenges. She mentioned:

> “The physician closed the activity with a conclusion that we have to be patient in performing TB treatment. So do healthcare providers in the prison, they have to be patient in caring all patients with all challenges.” (Field note)

This statement was proved the study, the providers tried to provide their best to achieve TB patient's treatment completion.

Other outcome was the integration between the TB care and Islamic services. There were two group activities provided to motivated TB patients in improving their patience during the treatment. The healthcare providers including the physician, the TB nurse, and the treatment observer also attended the discussions.

> "This is the second meeting of Group 2. The goal was to motivate TB patient in this group with Islamic teaching to enhance their therapy continuity. In this group, there was no patient who would continue his treatment after being released but it might provide a comparison with the first group or additional Islamic values or teachings related to patience in treatment." (Field note)

Other outcome was various types of continuity of care. A participant completed his therapy and two of them could not be followed up due to invalid addresses.

> "….at 1 p.m., I continued to trace Patient 6's home. Based on my data, there were two addresses. Firstly, it was according to the prison information system data and secondly was data from P6 to me. Previously, he confirmed that data in the prison was invalid. I could not find both address after tracing them and I decided to finish this investigation at 3 p.m." (Field note)

In addition, the researcher also found that a patient provided invalid phone numbers.

> "Today, I was shocked getting miscall from Patient 6 mother number after no response by SMS or calling. So I called back her back and fortunately she responded it. I introduced myself and asked about his TB therapy progress. She said that she was not his mother. She knew P6 while visiting her family in the

prison and then he asked for her number. So she was confused about my previous SMS. She suggested me to directly call him number but I said I did not have her number. When I confirmed whether she had contacted him again or not and she said not." (Field note)

This situation was related to some barriers including: (1) different patient's post-release address between information from prisoners with the PHC; (2) release date identification depended on patient's report; (3) barriers in the patient's referral; and (4) the family has not been involved to confirm patients' data.

Firstly, the post-release information became the main issues in the discussion since data from Patient 6 and 8 was considered as invalid. The treatment observer used the term "prison promise" to describe the situation of the prisoners' information being dissimilar to the fact. This was because the prisoners did not want to have any difficulties in the release process. He expressed:

> "Yea… they said it just because they want to be released soon, just like I said at the first time, because they said, it's called prison promise here." (Treatment observer 2)

The nurse also disbelieved the information from Patient 8 regarding his wife. She conveyed:

> "Right, he said like that in front of us, but we don't know the fact. His wife is not clear, which wife, what number? We don't know whether it's real or not… (laughing) unreal wife … Yea… same with illicit drugs…" (Nurse 2)

Secondly, release date identification depended on patient's report. The physician conveyed that she had anticipated TB patients who would be released by informing them to report to the healthcare providers in the prison several days before being released. If they informed the physician, they would get referral documents and the remaining medicines. She said:

> "Before it, I asked when he will be released, finishing his therapy in the prison or outside. If it's inside, it's no problem. However, if it's outside, don't forget if he will be released, several days before it, he has to report to get a referral letter and the remaining medicines." (Physician)

Thirdly, many obstacles existed in the referral implementation. The nurse expressed that she had a time management barrier related to other jobs which must be performed simultaneously. At that moment, she had also lost a patient's data to be confirmed with the PHC staff. She stated:

> "For the follow up, because I put the document in one arrangement. Actually, I have TB10 then honestly I didn't do it again, because I got sick of having to fulfill my Working Permission Letter requirements. It was the deadline from December until now, then conducting assessments for new prisoners. It's still about time management, then the data.... Sometimes I looked for it, followed up with the nurse in the PHC and the Program coordinator, after looking for it here, the data was lost, where was the patient's address?" (Nurse 2)

Furthermore, she felt reluctant to call the PHC staff over and over again because she did not follow up after the data lost incident. It was also due to a PHC staff member's

response providing many reasons in providing referral feedback to the prison. She expressed:

> "That's it, Patient 7, fortunately I got it from you. But, I feel ashamed to call the PHC staff as well because it has been two weeks and I did not provide any news. The problem is sometimes with the PHC staff or the program coordinator, for example, 'Sister, please send the TB10 or TB09.' 'Oh…. The fax is out service, then if mailing, I'm far from a post office or…. the thing that makes me uncomfortable is the PHC of Patient 7 said, 'Oh sorry the fax is out of service and so on.'" (Nurse 2)

Other confusion related to referral feedback was to acknowledge whether the patients go to the referral PHC or not since there was no feedback from the service.

> "We provided the letter, but after that we don't know whether the prisoner goes to the PHC or not. We have the referral letter for the PHC, but we don't know whether it's the correct PHC or not." (Physician)

The nurse was also confused whether the patient went to the directed service or not. She stated:

> "After that we don't know where the continuation takes place, it's hard to look for it…. It's difficult to be followed up." (Nurse 2)

A problem persisted was the external networking mechanism in the patients' referral and follow up. There was no effective communication between the prison healthcare service with the referral PHC particularly for those in a different city. The

communication was only via the local supervisor. It differed from comunication among PHCs that had a good networking system. The physician said:

> "That's it, Sister. I mean the problem is not only now, right? We have conveyed in the Local Health Department meeting and Law and Human Right Regional Office meeting. But, some of them said how about the funding or everything? Actually, if the patients are willing to go to the PHC, and the PHC follow them up, they should know about it because among PHCs must …. For example, from prison to PHC they know that TB10 must be returned, clipping of TB09 also must be returned, they should know about it…. It's still…. In every TB meeting, it is definitely conveyed that the TB09 is important. But, it's not only here, everywhere is like that. However, the networking among PHCs is stronger, right? So, if I want to know only in East Jakarta, we have a group, but if across city South, for example to West Jakarta, we cannot, only the supervisor can." (Physician)

Finally, the family has not been involved to confirm patients' data. In engaging patients' families, the physician described that the healthcare provider in the prison had gathered family phone numbers for those who were cared for in the inpatient care unit and only followed them up if they visited the ward. They were invited to the clinic. However, she forgot to call or send messages by SMS.

> "Additionally, we got family phone numbers of some patients, but haven't yet for others of them. And for family follow up, it's still…. For instance, we just got the family phone numbers of two patients and we just followed up one of them and the other is forgotten…Yes, they were invited to the clinic, mostly those who visited the inpatient care ward. It's easier. Just like the new patient who conducted

a urine test. He will be released, we have directly met his family, but for the other, I forgot to call or send an SMS. That's all that could be done." (Physician)

Moreover, the physician stated that she only informed patients to provide their family phone numbers but did not check the validity as mentioned:

"Only asking patients, not confirming the phone number validity." (Physician)

The physician claimed that the process could be effective if patients' families were involved in the program because they would then understand the disease and the treatment need, however some of them could not force their family members to complete their therapy. She expressed:

"Perhaps, if the family does know, it will be more effective than doesn't know about it. However, if there was a patient outside, his family knew that he is sick and must be treated then they couldn't push or persuade him to get medication. Was he P_5, right? Yea…. They said that they didn't have the power because he is an artist living in different area with them. The reason was he couldn't be in home, his family knew that." (Physician)

Furthermore, the treatment observer expressed an obstacle regarding patients' feelings around a lack of trust. They were afraid if they gave the phone number is would be misused. He said:

"Actually, now we already had the data, however… sometimes, if it's among prisoners, 'Do you have a phone number or not?' They are afraid, they are cared to answer it, that's why I follow up the family phone number. They are afraid to be

tricked. 'Do you want to give it or not? If something happens to you, it's easy if you provide the number.' But sometimes, it's a random number. The percentage is 50-50 in regards to the number." (Treatment observer 2)

2.2.3. Cycle 3: Engaging related parties in TB care

To enhance the post-release TB treatment completion, the participants agree to involved several related parties including patients' family, some divisions in the prison, and referral services in the community. The emerged themes included (1) involving family, (2) collaborating with some divisions in the prison, and (3) directly communicating with the referral services in the community.

2.2.3.1. Planning

There were two sub-themes under the family involvement including confirming post-release information before prisoners' release and engaging family as patients' post-release supports. This is based on the engagement purposes. A patient mentioned that the providers in the prison can ask for confirmation.

"Well, to be get easily contacted, we provide our number and our family's to you so we can communicate with you outside and asking such confirmations." (Patient 6)

Furthermore, due to invalid information from prisoners, the participants discussed strategies to engage the family in the prison before the patient's release. The treatment observer emphasized this to prevent invalid information. He said:

"The point is before they being released, we meet their family first here. That's the main and only way because if they are released like I said, although Patient 6 said bla…bla…" (Treatment observer 2)

The second purpose was based on the physician description that the family can support the patient's healing.

"Family knows the patient's disease… and supporting the patient's healing. Yea. So we can more rely on them outside." (Physician)

Then the nurse added the benefit which is the family is able to be treatment observers in the post-release period. She said:

"Ready to be drug treatment observer" (Nurse 2)

Regarding the collaboration with some divisions in the prison, the participants related to the family invitation in the pre-release period. They purposed a detailed mechanism in inviting the family to the prison clinic. The treatment observer suggested to coordinate with the Security Administration division and the visitation registration to invite the family to the clinic. He also described the mechanism of the family invitation from the visitation registration to the clinic. He said:

"The strategy is I collaborate with the Security Administration associate prisoners, if there is a visitation based on the list I make, visiting families please be directed to the clinic to see the doctor. The meeting should be only once because after coming the next time they don't need to come again. Visitation registration, then…. Directly exit around by the gate, then they are directed to Security Team

or to the clinic, like that. So there is stand by staff here, we just direct them." (Treatment observer 2)

A nurse confirmed this strategy by conveying:

"I think it must be from the Security Administration, Mam. It should from us as well, because it will be... by phone, by phone not only between associate prisoners." (Nurse 2)

For the direct communication with the referral services, a nurse suggested to get phone numbers of TB nurses in public health care in the same city. She mentioned:

"Actually the networking strengthening which is held every 3 months is for this city area, so we can get the contacts' numbers. (Nurse 1)

2.2.3.2. Enacting and observing

This phase described the engangement of each related party. In the family involvement, some efforts were performed to engage families in the pre- and post-release period. The researcher observed a post-release data confirmation by the providers conducted when two family members visited a patient.

"They visited the clinic based on the physician's invitation and in collaboration with the Security Administration Division. At that time, the physician and the treatment observer validated the post-release data from a TB patient including the family's name, address, phone number, and the nearest PHC. The family members confirmed that the information was correct." (Field note)

In the post-release period, the family played important roles to support the patient such as nutrition, observing medication adherence, accompanying the patient to the reveral service, and preparing a job for him after his recovery.

> "Talking about Patient 7, Family 1stated that she really controlled his treatment from medication consumption, checking his health to a PHC, sunbathing at 7 a.m. every morning, and providing him routine meal and milk every day. Patient 7 and Family 1 said that Patient 7 takes TB pills maximum 9 am. and sunbathing every morning. Family 1 was preparing a job as a gas and mineral water holder in a gallon delivery for Patient 7 after his recovery." (Field note)

Finally, communication with the referral service should be improved. The theme emerge regarding this support was directly communicating with the referral services in the community. Nurse 1 explained that a community nurse in the referral service of Patient 5 had contacted her and reported that his family came to the service and sent the referral letter and the remaining medicines. Nurse 1 reported:

> "Sister, Patient 5 had reported to PHC X. The staff just called me. The referral feedback sheet had been provided to his family. The information was from the PHC staff said that he had been met by a doctor and the family would send it." (Nurse 1)

Other nurses conveyed that she will directly visit the referral PHC to follow-up the final result treatment of a patient.

> "For Patient 10, I will go to the PHC because I know the PHC location." (Nurse 2).

2.2.3.3. Refflecting

Several outcomes were obtained in the cycle including family supports for TB client, valid post-release information, two-way communication between providers in the prison with the referral services, increase of post-release TB treatment completion rate, and a complete Islamic-based nursing support model. Family supports was also provided to other patient (Patient 9) by his wife (Family 2). Famiy 2 said that she would accompany his husband to take the further medication for him.

The new nurse in the TB program claimed that the developed procedures were useful to supervise TB therapy after release since they could recognize the patient's referral PHC, know who was the TB coordinator in the service, her phone number and other information. She expressed:

> "…. activities we've done were very helpful to monitor the treatment. So we can know his referral PHC, then we also are acquainted with the TB program coordinators, getting their phone numbers, everything." (Nurse 2)

In the last cycle, two TB patients (Patient 9 and Patient) were involved and both completed their post release TB treatment. Although Patient 9's TB treatment had been interrupted for six weeks, he could finally continue his three month post-release TB therapy. However, based on a physician's suggestion, he had to continue TB therapy for an extra three months since he had extrapulmonal TB. His family came to the referral PHC and got the remaining medicine. Regarding Patient 10's therapy, his referral PHC confirmed that his therapy was completed. The complete model is described in figure 4.4.

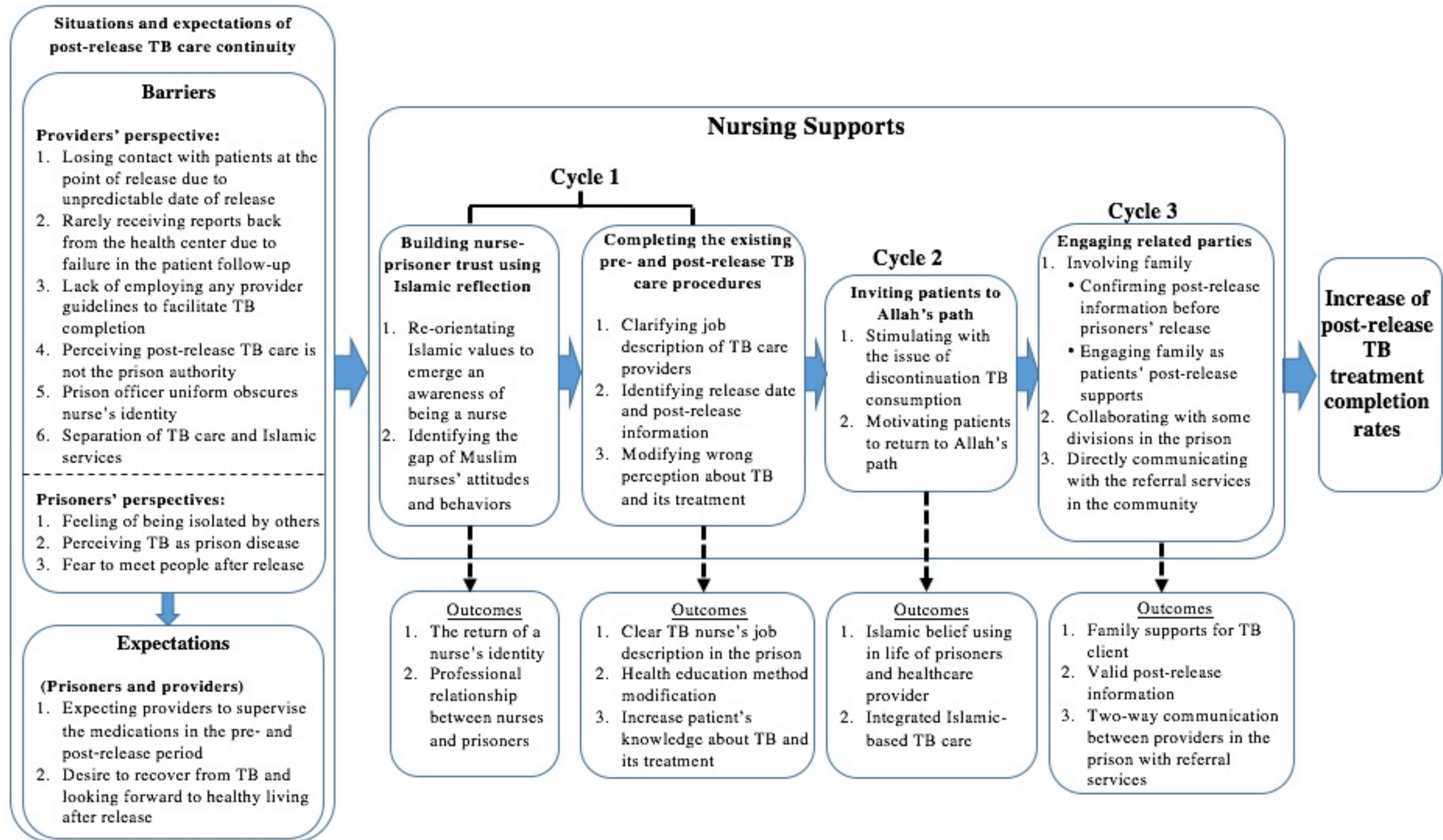

Figure 4.4. Islamic-based nursing supports model to enhance TB treatment completion after release

3. Discussion

This part will discuss the situation of TB treatment completion after release from a prison in Indonesia, the Islamic-based nursing support model in enhancing TB treatment completion after release from a prison in Indonesia, and the outcome of the model.

3.1. Situation and expectations of the post-release TB care continuity

The part will review the perspectives of nurses and patients incorcodance with the situations of TB care in the prison and the expectations of inmates and healthcare providers related to the TB care continuity after release. The nurse experienced obscure identity in performing her responsibility as a nurse. The nurse considered that she is not like other nurses working in hospitals who treat their patients with caring behaviors. She associated her feeling with her initial working experience in the Guard Division during five years before alocated in the clinic. This finding is relevant with Weiskopf (2005) states that a hospital setting is extremely dissimilar with the correctional environment where the nurses have to care for prisoners in the punitive milleu. This condition was reflected in the nurse participant behavior in providing a punishment to a patient who came late to get his treatment. The nurse's false identity may result in her inadequate accomplishment in providing TB care particularly to supervise the patient's adherence. Besides, the participant believed that her feeling of loosing identity mainly due to using similar uniform with other prison staff. The use of uniform improves the professional identity development that can direct to enhanced the nursing practice performance (Desta, Gebrie, & Dachew, 2015).

The finding shows that the nurse perceived that after release period is not the correctional setting jurisdiction then they can do noting to the patient's care. Furthermore,

the participant considered the interventions of correctional providers on ex-prisoners lead a negative psychological effect to them. The ex-prisoners may feel a trauma of inprisonment. The ethical dillemma is related to the scope of practice of correctional nurses. American Nursing Association (ANA) as cited in Knox (2013) states that correctional nurses providing nursing care for client in individual, family, community and population levels under the authority of the criminal justice system. In this case, the participant experienced ethical dillemma to contact with ex-prisoners in the community which is the authority of the Ministry of Health.

This situation can be solved by collaborating with the referral service in the community which unfortunately was inadequate. The healthcare providers in the prison rarely received reports back from the health center due to failure in the patient follow-up. It happened due to several barriers including loss of contact with the patients on the date of their release, incorrect post-release information, re-arrest, illicit drug use, and a limited referral process. Inmates may provide invalid contact information and aliases because they fear incrimination or relocation by the authorities (Fusch & Ness, 2015).

The providers experienced losing contact with patients at the point of release due to unpredictable date of release in several patients in the beginning of the study. It happened due to limited coordination between the clinic and the administration division in the prison. There should be an administrative system for unplanned release of prisoners who are undergoing TB treatment (DHHS CDC, 2006). Discharge planning should be performed at the time of the patient's diagnosis. Each client needs to have a case manager or a team of case managers (i.e. jail staff, community health care staff or dually based healthcare workers who work in both settings) to work with the prisoners in the prison or society to address the patient's needs. On release, the case managers should have a

specific appointment with the former prisoners including the date, time, and address (DHHS CDC, 2006; Goedvolk & Walberg, 2013; Harwick, Dood, & Neusteter, 2012; Lincoln, Miles, & Scheibel, 2007).

Some direct providers mentioned that the failure to visit referral services also because of relapse into illicit drug use and recidivism which lead to the interruption of care. Both are associated with psychological conditions such as isolation, hopelessness, and financial problems, such as the inability to afford housing and unemployment (Fox et al., 2015; Mallik-Kane, 2005). Additionally, illicit drug use relapse occurs because ex-users return to their previous environment which stimulants use of alcohol and finally they fall back into illicit drug use (Cepeda et al., 2015). Finally, the linkage between correctional facilities and the community health services is another concern to ensure continuity of care (Lincoln et al., 2007; Mallik-Kane, 2005; Moller, Gatherer, & Dara, 2009). Usually, collaboration with community services involves HIV patients (Lincoln et al., 2007).

The providers mentioned that they did not have any detailed procedures for post-release care in the prison even though there is a published guideline with the detailed action mentioned before. This situation reflected that the healthcare providers in the prison inadequately implemented the national TB guidelines for correctional facilities which was possibly caused by several conditions. Most healthcare services in correctional institutions are organized by other Ministries of Health such as the Ministry of Justice with barriers of professional quality control and establishing linkage with civilian services due to separation from general healthcare services (Moller et al., 2009). Either inadequate TB management in the correctional facilities or post-release follow-up could challenge TB control in the community (Dara et al., 2013). Program barriers may include an unclear

project framework, undetermined personnel responsibilities and functions, indefinite procedures, and a lack of political will. These require collaboration of both the public health and corrections agencies by sharing roles and resources to address healthcare service gaps for prisoners (Lincoln et al., 2007).

Several prisoners with TB assumed being isolated by others. This phenomenon is a false consciousness consisting of internalization of oppression imagination as the effect of dehumanization (Freire, 2005). The patients feel the domination of their peers and fear of being refused or neglected so they will be alone from their groups. This situation negatively influences relationships among prisoners. Other prisoners fear of TB patients and keep away from them instead of showing caring (Adane et al., 2017; Diuana et al, 2008 as cited in Ferreira Junior, Oliveira, & Marin-Leon, 2013). Some inmates believe that being identified as ill persons might threaten their social status such as cellmate acceptance (Waisbord, 2010). In addition, they aware that keeping distance from others in order to prevent the disease transmission (Santos & Sá, 2014).

This situation also occurred in the post-release period when the ex-prisoners have to socialize with the society. Breen (2011) shows ex-offenders consider that they experience negative labeling by others due to a criminal record and/or imprisonment. The perception is obtained from labeling by others, disclosing their criminal record, and self-perception. This stereotype inhibits their ability to reintegrate back to the community. In the context of healthcare, they assume that healthcare providers will discriminate, insult, and unrespect them (Edlin et al., 2005).

All participants mentioned their positive intentions to complete the treatment after their release. These positive intentions are relevant to the patient's positive expectation in regaining good health after release and they significantly recognized their health needs

(Binswanger et al., 2011; Mallik-Kane, 2005). This leads to optimism that they will take responsibility in fulfilling this requirement during the post-release period (Lincoln et al., 2007). The realization was still influenced by those barriers in visiting the referral services that lead to no feedback from the referral service in the community. Furthermore, the post-release health related experiences may vary depending on the variety of characteristics and backgrounds of the ex-offenders (van Dooren, Claudio, Kinner, & Williams, 2011).

3.2. Islamic-based nursing support model to enhance TB treatment completion

Building nurse-prisoner trust is a specific issue in correctional settings. The nurses should balance the provision of care to inmates. On one side, the prisoners have rights to get exalted and non-prejudiced care and on the other hand the nurse also has rights to be free from physical violence whilst providing care. The balancing between intimacy versus distance can be applied as a paradox in dealing with the dilemma (Crampton & Turner, 2014). The balance status facilitates idea exchanges among discussants (Durakoğlu, 2013). The nurses should be aware of their personal values as the basis of their judgement and attitudes to be able to build their caring character in providing professional care. Staff training is considered as an important method to develop this in the correctional environment (Moller et al., 2009). It is required skills to establish a therapeutic relationship (Christensen, 2014), particularly a relationship with the prisoner-patient and with themselves (Crampton & Turner, 2014).

The dialogue in the study attempted to build relationships between correctional nurses and prisoners. It was successful with awareness to change attitudes in interactions with patients. Weger Jr., Bell, Minei, and Robinson (2014) expressed that each

relationship initiates with a meeting when individuals try to gain some purposes such as a client's problem solving. Active listening conveys empathy and develops trust by demonstrating unconditional respect and verifying the other's understanding. This first impression is crucial since it influences the next interactions.

Unscheduled releases frequently resulted in interrupted treatment completion. Ideally, the prison administration staff should provide prisoners' release date information both planned or unplanned discharge to the prison healthcare providers immediately when it is available (Dara, Chorgoliani, & Colombani, 2014; DHHS CDC, 2006). In terms of coordination, there should be two way communication between the administration and the healthcare staff in monitoring patients' release dates. Therefore, the patient loss at the point of release can be minimized.

Prisoners' active involvement in the process is required to encourage communication. It is supported by delivering information in understandable ways for prisoners who are most likely to have a low education level. The discussion also can involve their earlier experiences such as positive or negative interactions with particular providers and their health needs and how to meet them to improve their self-efficacy in managing their treatment after release since the biggest obstacles of continuity of care are therapy adherence, housing, social relationships and unemployment (Dara et al., 2014; DHHS CDC, 2006; Moller et al., 2009).

The main role of the Muslim nurse is to invite patients to behave based on Allah's guidance including obeying His instruction and preventing His prohibition. This is consistent with the Muslim's role as *da'ee* to provide enlightenment to the path of the faith of Islam (Bala, 2015; Racius, 2004). All Muslim including nurses have this honorable duty (Racius, 2004; Rofi'i, 2008; Tuasikal, 2012).

In enlightening patients, the nurse may use positive thought fromthe Islamic perspective (*huznu'l zann*). Many Islamic practices are recommended to employ strategies both fostering positive thinking and refraining from negative thinking (Yucel, 2014). This method is relevant with Freire's method in changing negative thought considered as false consciousness into positive thought as truth. Positive thought using Islamic teachings are used to motivate and guide the patients in order to improve their patience during their treatment and ensure their adherence. In the study, TB patients were re-oriented by exchanging some new ideas which were contrary with their negative thinking. For instance, the *santri* expressed a new perspective in dealing with excommunication by conveying that it is better to be excommunicated by humans than by God.

Remembering Allah is a support provided to connect to Allah. Belief in God results in positive psychological health. When patients feel connected to God with unlimited power and merciful, this causes them to feel relaxed and optimistic about life. Knowing God in Islam helps individuals to have patience and understanding (Koenig & Shohaib, 2014). Patience in Islam does not mean giving up any effort (Kasule, 1999). On the contrary, it refers to enduring, tolerating, fighting discomfort and dealing calmly with difficulties (Life, 1994). This concept is crucial for every party involved in the TB treatment since many barriers occur particularly in completing TB treatment after release. Prisoners with TB and illicit drug users might have to face many barriers such as time constraints to pick up their TB medicine due to work and returning to previous environments that increase the probabilities to get involved in drug abuse or committing any crimes. Correctional nurses also must integrate this value in providing TB care to ensure this treatment completion in facing some difficult situations such as lost patients because of re-arrest or invalid post-release address and phone numbers, an inadequate

referral system, and the attitudes of referral service providers. Patience can make the patients and the nurses keep being persistent in performing positive behaviors to achieve the therapy goal.

There are several roles of the family in ensuring post-release TB completion. During the pre-release period, inmates should inform healthcare providers in correctional facilities the addresses and phone numbers of family members and relatives where they will live after their release (Dara et al., 2014). In this case, they may provide invalid data about this information (DHHS CDC, 2006). Thus, the data needs confirmation from the family before prisoners are releasead. Beside data confirmation, the family plays roles in facilitating TB treatment completion to help the patients when they are experiencing barriers such as in the case of the patients who cannot visit referral services to take their medicines or other follow up interventions due to some reason such as work. In these instances family members can play a supporting role.

Family involvement as TB treatment observers remains controversial. Several studies show that family observation with intensive monitoring and home visits had great cure rates. On the other hand, another study indicates an opposite finding when the family observation demonstrated lower cure rates as opposed to someone outside the family (Frieden & Sbarbaro, 2007). In this study, family plays an important role in TB treatment continuation both in the pre- and post-release periods. The household members supported patients by reminding them to take their medication and facilitated them in the continuation of their medicines while the prisoners were not ready to meet other people after their release. In addition, the family provided financial support when former prisoners were jobless.

Immediate actions in collaboration with the local NTP supervisors are required to ensure that the patients visit the referral services and maintain their therapy after being

released. The communication should be rapidly performed using any quick method such as telephone and text message (Dara et al., 2014), as soon as the fixed date of release is published. In the pre-release period, the prisoner should be introduced directly to the referral healthcare provider who is in charge in his post-release TB care and set appointments after being discharged. All patients' information about TB and their treatment card (or a copy of it) should be transfered to the referral services. Additionally, the patients should be supplied with adequate medication until their next appointment (Dara et al., 2014; DHHS CDC, 2006). A referral record is beneficial to monitor and evaluate the process and the crucial indicator is the registration quantity of released TB patients in referral services (Dara et al., 2014).

In the post-release period, greater effort must be provided regarding some conditions of the ex-prisoners to deal with any barriers. The nurse in the referral service can collaborate with many private and government institutions to support the continuity of TB care in dealing with ex-inmates' obstacles in the community. The partnership should have clear job descriptions of each party in the planning and monitoring actions (Dara et al., 2014).

3.3. Post-release TB treatment completion

The treatment result was categorized based on the National Tuberculosis Control Guidelines for correctional facilities. It includes cure, completed treatment, failure, death, loss to follow up, and unevaluated (Directorate General of Correction of Ministry of Law and Human Rights of Republic of Indonesia, 2015). During the study a patient died before being released, two patients completed the therapy in the prison because of false predictions of their release date, and a patient discontinued his treatment in the prison.

Regarding post-release treatment completion, a patient failed due to his activities after his release. The healthcare providers in the prison considered that this could happen because his family did not have the power to support his treatment. It might be because the patient perceived his disease in the "low level" as meaning not too serious. Two patients were in the unevaluated category since the staff in the prison could not finalize their treatment results. A patient might visit the referral service based on information from a staff in the PHC who stated a patient from the prison went to the service to continue his treatment. However, the nurse in the prison found that patient's information including the patient's name, family member's name and address were different from the nurse's records. The nurse should further follow up this and confirm the information to ensure TB treatment completion.

A patient finished his treatment completion in the second cycle and two patients in the last cycle continued their TB treatment after release. Two patients were categorized as cured (with sputum confirmation) and a patient completed his six-month TB treatment, however he should have an additional three-month continuation because he had experienced extra-pulmonary TB which means he has to finish nine-months of TB treatment.

4. Contributions to Knowledge Development

The Islamic-based nursing support model to enhance post-release TB treatment completion was developed based on Freire's method in changing false consciousness. During the model development, the findings contributed to nursing knowledge development including emancipatory, ethical, empirical, aesthetical, personal knowing (Chinn & Kramer, 2015)

In the reconnaissance phase, the nurse understood the barrier in the referral

mechanism in which there was no communication between the TB nurse in the prison and in the referral services. To fill this gap, she suggested to have direct interaction to get feedback about the referral process and post-release TB treatment completion. The crucial role of family was also acknowledged while the prisoner is still in the prison particularly to confirm the information from the prisoners.

Ethical knowing was gained through dialogue and training to be a Muslim nurse. The nurse recognized how to interact with patients according to ethic code. The nurses should treat prisoners in the same way as patients in other settings since inmates also have the same rights in accessing health services. Recognition of prisoners' problems was obtained by listening to them talk about their conditions. In addition, during the study, the nurses understood their roles in enhancing post-release TB treatment completion rather than only documenting and reporting the program.

In the context of empirical knowledge, the study explained the phenomenon of the existing perceptions about the existing situation and the expectation of post-release TB treatment completion of prisoners with drug abuse issues and the nurse's roles in supporting this. The model also provides guidance for correctional nurses in working with TB prisoners to enhance post-relase TB treatment completion from assessing essential information until ensuring completion in the post-release period.

Aesthetical knowledge is obtained through a dialogue when the nurse recognized the need of trust building after reflecting and analyzing the nurse-prisoner relationship. She considered closeness or trust as crucial for establishing the next interaction since the prisoners will not take any medication if they do not believe the nurse. She also realized that she had never built this before.

The nurse re-gained her nursing identity after comparing her feelings and attitudes

when interacting with patients in the prison to patients in other settings (in the hospital and in the community). While interacting with prisoners, she positioned them as subordinates and considered herself as prison staff who have a similar responsibility with other personnel to ensure the prisoners obey the rules. This was due to her working history in the prison before taking responsibilities in the clinic and the use of a similar uniform to other prison staff. This personal knowledge was important to establish trust and relationships with prisoner-patients.

5. Lessons Learned

As critical theory is the philosophy underpinning the method, the researcher gained deeper understandings about false consciousness and how it occurs among the participants. The researcher also comprehended the imbalance of power between correctional nurses and prisoner-patients as mentioned in that the nurses considered the inmates as their subordinates. By using a dialogue method, the researcher attempted to balance the power between the nurse and prisoners who have a similar position as human beings based on the Islamic value.

The researcher also learnt the strategy to conduct the dialogue based on Freire's method. It was performed by sharing ideas of a topic and trying to establish a consensus about it that covered the point of views from both parties. Firstly, the researcher explored the participants' opinions about a certain issue and the background how they perceived this. Then, the researcher reflected the ideal situation, discussed the gap of the situation, and strategies to fill it.

During the study, the researcher worked in a team and learnt to empower others. In empowering them, the researcher proposed an issue of post-release TB treatment completion that previously had not been considered as the setting concern. It was

discussed to produce awareness that it is a collective problem. Thus, all members made an effort to deal with this. Moreover, the researcher learnt to be flexible in managing the team with personal and environmental limitations such as managerial skills and the ineffectiveness of the referral mechanism in transitional and post-release communication.

The researcher acquired skills in analyzing data as well as, in particular, writing themes and constructing them in a diagram. The themes were created using the participants' words. Then, they were arranged based on their relationship until the model was developed.

Many barriers occurred during the study and were considered as valuable experiences for self-development. The researcher learnt to be persistent in dealing with any obstacles and creatively found solutions for the situations. For example, to determine the study setting, the researcher had to communicate with various parties from a local to national level in finding relevant information to finally decide on the setting.

The researcher also learnt to be objective in order to not fall into a false consciousness by managing her own perceptions regarding some situations and analyzing them. When the researcher had to deal with unwanted conditions, such as when the participants did not respond, the researcher called or sent text messages, and tried to find the reason by meeting the participants and directly communicating with them. It did not mean that the participants did not trust the researcher.

Conducting the study resulted in a passion for the researcher to develop correctional nursing in Indonesia. Since the researcher is working in a nursing education institution, the researcher will develop collaboration with prisons in controlling TB in this setting and integrate it in academic and research activities. Academic-service partnership in this issue can help Indonesia in successfully gaining TB indicators particularly in this setting. As an Islamic approach is considered an effective way to work with prisoners, the

researcher is interested to explore strategies to implement this in overcoming an inmate's obstacles particularly psychosocial barriers.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

This chapter presents the study conclusion, limitation of the study, and recommendations for policy, practice and further research in nursing.

1. Conclusion

The study was conducted using PAR consisting of three cycles. The first cycle was the development of pre-post release TB care mechanism and building nurse-prisoner trust. The second cycle was the development of Islamic-based nursing support. The third cycle aimed to implement the model. Before entering the cycles, the reconnaissance phase was accomplished to explore the situation of post-release TB care and the nurse's role supporting this.

The emerged themes in the reconnaissance phase were categorized in two groups including situations and expectation of post-release TB care based on perspectives of providers and patients. The situations from providers' views were: (1) losing contact with patients at the point of release due to unpredictable date of release; (2) rarely receiving reports back from the health center due to failure in the patient follow-up; (3) lack of employing any provider guidelines to facilitate TB completion; (4) perceiving post-release TB care is not the prison authority; (5) prison officer uniform obscures nurse's identity; and (6) separation of TB care and Islamic services.

The situations based on patients' perceptions were: (1) feeling being isolated by others; (2) perception of getting TB due to prison life and no need for medication after release; and (3) fear to meet people after release. The participants' expectations included:

(1) expecting providers to supervise the medications in the pre- and post-release period; and (2) desire to recover from TB and looking forward to healthy living after release.

The model development consisted of three cycles including: (1) building nurse-prisoner trust using Islamic reflection and completing the existing pre- and post-release TB care procedures; (2) inviting patients to Allah's path; and (3) engaging related parties. The building nurse-prisoner trust using Islamic reflection consists of two activities which are re-orientating Islamic values to emerge an awareness of being a nurse and identifying the gap of Muslim nurses' attitudes and behaviors. The themes of completing the existing pre- and post-release TB care procedures involves clarifying job description of TB care providers, identifying release date and post-release information, and modifying wrong perception about TB and its treatment.

Activities to invite patients to Allah's path consisted of stimulating the patients with the issue of discontinuation TB consumption and motivating patients to return to Allah's path. The last support is engaging related parties, which involves: (1) involving family to confirm post-release information before prisoners' release and to provide support to patients in the post-release period; (2) collaborating with some divisions in the prison; and (3) directly communicating with the referral services in the community.

The outcomes of the model were categorized in two groups at the individual and system level. The transformation in individual level include the return of a nurse's identity, Islamic belief using in life, increase patient's knowledge about TB and its treatment, and family supports for TB client. The changes at the system level involve the professional relationship between nurses and prisoners, the clear TB nurse's job description in the prison, the health education method modification, the valid post-release information, two-way communication between providers in the prison with the referral

services, and integrated Islamic-based TB care. Finally, the major outcome is the increase of post-release TB treatment completion rates.

2. Limitations of the study

The limitation of the study included the selection of the participants when the researchers did not involve healthcare staff in the community services in the planning phase. This had an effect on various responses of the nurses in the community regarding this issue. Some of them provided quick feedback while others slower. This may have happened because there is no mutual commitment and there are different perceptions among them.

The study was conducted using participatory action research which has limitations in terms of application in other settings. Therefore, this model has limited use for nurses in a similar setting. In fact, the distribution of nurses in correctional setting also varies in number and education in Indonesia which will need adjustment to implement the model. In addition, the model does not provide detailed structured in changing prisoners' false consciousness and directing them to the Muslim's life purpose and Allah's path. Therefore, a following study is required to complete the model.

3. Recommendations

Recommendations are proposed based on the findings for policy makers, nurses in the practice area, and further research.

3.1. Recommendations for policy makers

There should be a revision of the existing national TB guidelines for correctional institutions. It should involve collaboration with the administration division in terms of indentifying patients' release dates in order to prevent patient loss before being referred in the pre-release period.

The protocol should consider the family as an important element in supporting the post-release TB treatment completion by engaging them while the patients are still in the prison to confirm post-release information from the patients. The providers can confirm the information by inviting them to the clinic or calling them by phone. Prisoners' households also have roles for supporting the patients as post-release treatment observers.

In addition, parole board engagement should be enhanced by integrating them in following up patients who do not come to the referral services. To establish the partnership, there should be a program (sosialization?) and advocation to the board to build a mutual commitment among institutions in controlling TB.

The guidelines describe the communication and coordination path among the parties in the referral and follow up activities. There is no information exchange between the nurses in the prison and in the communities. Thus, this should be added in order to create effectivelycommunication to follow up patients' continuity of care. The nurse in the referral services can get valuable information from the nurse in the correctional setting which can be used to ensure post-release TB treatment completion. For example, the nurse in the prison might share her/his experiences in working with a particular patient who has a specific condition such as an undisclosed HIV status to his family or information about family involvement starting from the incarceration period.

3.2. Recommendations for nursing in the service area

In applying the model, the nurses should continosly maintain their religiosity, improve their Islamic knowledge and share skills. Involvement in the Islamic community to routinely gain comprehension about Islam will facilitate Muslim to maintain spirituality and improve their knowledge. In addition, Islamic sharing skills can be enhanced by frequent discussions with Islamic leaders to get some strategies and with prisoners to obtain more information about their conditions, their points of views, and backgrounds of these opinions so the nurse can modify prisoners' perceptions. Since most of the correctional nurses in Indonesia have adiploma education background, they should get training to improve their communication skills, particularly in performing dialogue.

Besides enhancing nurses' religiousity and communication skills, the sustainable model implementation requires adequate collaboration among parties in the prison and in the community. In the prison, collaboration between the TB program and registration division should be maintained particularly in identifying patients' release dates. Moreover, collaboration between correctional institutions with several parties in the community such as referral services and parole boards can facilitate patients' follow ups to ensure post-release TB treatment completion. The parole boards should be involved too if the patients discontinue visiting the referral service.

3.3. Recommendations for further research

Future studies are required to develop guidelines or procedures for each theme. Participatory action research can be conducted to develop the model or guideline in more detail. Experimental studies can be performed to test the variables in the model. In addition, a grounded theory is an alternative method to get to know the pattern of prisoners' behavior in completing their post-release TB treatment.

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APPENDIX A

DEMOGRAPHIC DATA OF HEALTH CARE PROVIDER

Participant's Code : ……………………………………………………………

Gender : F / M

Age : ………………….. years

Marital status : ……………………………………………………………

Education : ……………………………………………………………

Occupation : ……………………………………………………………

Position : ……………………………………………………………

APPENDIX B

DISCUSSION GUIDELINES WITH TB PROGRAM COORDINATOR IN THE PRISON

1. Provide the study overview (background/urgency, purpose, and procedures).
2. Discuss regarding those issues.
3. Discuss about project implementations (time frame, venue, procedures, expenses, coordination and communication with healthcare providers, NGO personnel, associate detainees, other divisions, and family visiting prisoners in the prison).
4. Ask for permission facilitations in using equipment during the study such as laptop and voice recorder.
5. Identify potential participants (healthcare providers, NGO personnel, and associate prisoners in the prison)
6. Encourage the co-researcher in this study by explaining the study benefit for the development of programs and policy related to the continuity of TB care after release and National TB indicator achievements.

APPENDIX C

INTERVIEW GUIDELINE WITH HEALTHCARE PROVIDERS IN THE PRISON ABOUT THE SITUATION OF TB TREATMENT COMPLETION AFTER RELEASE OF PRISONERS WITH DRUG ABUSE AND NURSE'S ROLES

Objective	Question
1. To explore correctional TB nurses' description regarding the current situation of TB treatment completion after release of prisoners with drug abuse	1. From your experience, could you describe your experience in caring prisoners who continued their TB therapy after release? 2. What did the result of their TB therapy after release? 3. What did you do to help the prisoners completing their TB therapy after release? What did you do to encourage them to finish their TB therapy after release?
2. To explore correctional TB nurses' perception and expectation regarding possibilities of post release TB treatment completion result of prisoners with drug abuse	4. What are the possibility of being successful in TB treatment completion after release? What are factors influencing the treatment result? 5. What are your expectation regarding prisoners' TB therapy completion after release? What is your reason of your expectation?
3. To explore correctional TB nurses' perception regarding nurse role in supporting TB treatment completion after release of prisoners with drug abuse	6. What should nurses do to help prisoners in completing their TB treatment completion after release?

APPENDIX D

PRISONER’S DEMOGRAPHIC DATA

Participant’ Code : ……………………………………………………………

Age : ………………….. years

Marital status : ……………………………………………………………

Education : ……………………………………………………………

Occupation before incarceration : ……………………………………………

Crime type : ……………………………………………………………

Sentence period : ……………….. years ………………………… month

Release date : ……………………………………………………………

Type of release : ( ) pure ( ) with conditions (self-report after release)

Health Status Information

Drug abuse type : ……………………………………………………

Status of drug abuse : ( ) still using ( ) stop

Methadone therapy : ( ) yes ( ) no

If yes, dose ……………………………………

Withdraw effect: ( ) yes ( ) no

TB type : ……………………………………………………

Previous TB therapy result (for relapse patient) : ……………………………

Starting TB therapy date : ……………………………………………………

Date of finishing therapy (prediction) : ……………………………………

Adverse effect of TB therapy : ……………………………………………………

Co-morbid disease : ( ) HIV

( ) AIDS

( ) Hepatitis

( ) Others, please specify ………………………

Post Detention Information

Address : ………………………………………………………

Phone/mobile : ………………………………………………………

Friends'/relative's name : ………………………………………………………

Friends'/relative's phone number : ………………………………………………………

Health service referral : ………………………………………………………

Transportation to residence : ………………………………………………………

Home map :

Planning after release :

APPENDIX E

INTERVIEW GUIDELINES WITH TB PATIENTS IN THE PRISON ABOUT THE SITUATION OF TB TREATMENT COMPLETION AFTER RELEASE OF PRISONERS WITH DRUG ABUSE AND NURSE'S ROLES

Questions:

Objective	Question
1. To explore the current situation of TB treatment completion after release of prisoners with drug abuse	1. From your experience, could you please describe your experience about your TB treatment completion after release? What did the result of your TB therapy after release? What situations and who did influence your TB therapy completion after release?
2. To explore prisoners' possibility and expectations toward their TB treatment completion after release	2. What are the possibility of your TB treatment completion result after release? What will be factors influencing the treatment result? 3. What are your expectations regarding your TB therapy completion after release? What is your reason of your expectation?
3. To explore participants' expectations toward nurses to support their TB treatment completion after release	4. What do you expect for nurses in the prison and in the community to support your TB treatment completion after release?

APPENDIX E

FGD GUIDELINE FOR PLANNING

Steps:

1. Contract: time, purpose of the meeting, and procedures
2. Discuss plan of actions in implementing the alternatives including communications during post release period
3. Agreement for follow up TB treatment after release (time, venue, method)
4. Ask permission and make an agreement in accompanying participants after release and appoint them to TB care program coordinator after release (primary healthcare or hospitals).

Questions:

1. What we learnt together from the last meeting is that we have a common goal toward TB therapy completion after release. What should we do to achieve our goal? Who should be involved? What are roles of each party? How will it be implemented? Where will it be implemented? When will it be implemented? What are the success indicators for each activity?
2. How if we plan to do ………. (The researcher will purpose alternatives) to facilitate prisoners in completing TB therapy after release? What can nurses do to support this?

APPENDIX F

FGD GUIDELINES FOR REFLECTING AND RE-PLANNING

OBJECTIVE	QUESTION
1. To evaluate nursing support implementation	1. During the process, I describe that ….. (Explain the nursing support to facilitate prisoners' TB treatment completion after release). What are your comments about this? (member check regarding the model)
	2. After implementing our plan in facilitating the prisoners to complete their TB therapy after release, how are the TB therapy results?
	3. What factors did influence the results? What did you do to booster patients' motivation in completing their TB treatment?
2. To modify ineffective methods	4. How to modify ineffective problem solving to facilitate patients' TB therapy completion after release?

APPENDIX H

INFORMED CONSENT

Research Title: The Development of Islamic-Based Nursing Support Model for Successful TB Treatment Completion in Drug Users after Release from a Male Prison in Indonesia

Researcher: Megah Andriany

Lecturer in Community Health Nursing, School of Nursing, Diponegoro University, Indonesia and Student in Doctoral Program, Faculty of Nursing, Prince of Songkla University, Thailand.

Phone: +628112706233, E-mail: megahandriany@gmail.com

Dear Participant,

As TB cases are increasing in correctional facilities, I am trying to develop the suitable model for TB treatment continuation after release from Indonesian correctional settings. You are being requested to contribute to this research. The purpose of this study is to develop an Islamic enlightenment model for successful TB treatment completion in drug users after release from a male jail in Indonesia.

Before deciding to take part in this study, it is important for you to understand the research goals and what your involvement is. Please read the following explanation carefully and ask the investigator if you want more information or need further clarity. The study will take around three months starting from the jail and continuing after you are released. The activities in this study will be group discussions regarding your barriers in completing TB treatment after release and how to overcome them. The researcher will

involve Islamic values and teachings in the activities. This study will be of benefit for you in facilitating your therapy completion.

Your identification will be kept anonymously and all of the data from you will be kept by the research team and group members. They have taken an oath of confidentiality in keeping the data. You also have to keep other's information from your group confidential. The research risks are minimal because the researcher will follow national guidelines for TB treatment in prisons and for drug users. All of the costs during study will be supported by the researcher. If you find some inconveniences, please inform the researcher and you may withdraw your participation whenever you want.

Your involvement is very important to understand the real situations and to overcome the barriers based on them. We hope that this study will help the Indonesian government in overcoming the TB problem in correctional facilities particularly for Muslim and drug abusers. Your involvement in this research is voluntary and by signing this informed consent means that you have read, understood, and agree to participate in this study.

Signature of Participant ________________________ Date ____________________

I have clearly explained the information regarding this study to the informant for his/her informed consent.

Signature of the Researcher _______________________ Date ____________________

VITAE

Name Mrs. Megah Andriany

Student ID 5410430013

Education attainment

Degree	Name of Institution	Year of Graduation
Bachelor of Nursing	University of Indonesia, Indonesia	2001
Master of Nursing	University of Indonesia, Indonesia	2008
Community Health Nurse Specialist	University of Indonesia, Indonesia	2009

Scholarship awards during enrollment

Scholarship for Indonesian lecturer from directorate general of Higher education, ministry of national education of Indonesia 2011 – 2014.

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List of Publication

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