Development and Psychometric Evaluation of Intention to Drug Avoidance Scale (IDAS) for Thai Adolescents

Pichet Suwanchinda

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

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Prince of Songkla University

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Author Mr. Pichet Suwanchinda

Major Program Nursing (International Program)

Major Advisor

……...

(Assoc. Prof. Dr. Wandee Suttharangsee)

Co-advisor

……..…….

(Asst. Prof. Dr. Vineekarn Kongsuwan)

Examining Committee :

…….. Chairperson

(Assoc. Prof. Dr. Nidtaya Takviriyanun)

..……...… Committee

(Assoc. Prof. Dr. Wandee Suttharangsee)

..……...… Committee

(Asst. Prof. Dr. Vineekarn Kongsuwan)

..……...… Committee

(Asst. Prof. Dr. Umaporn Boonyasopun)

..……...… Committee

(Asst. Prof. Dr. Orawan Nukaew)

The Graduate School, Prince of Songkla University, has approved this thesis as partial fulfillment of the requirement for the Doctor of Philosophy Degree in Nursing (International Program)

……..……

(Prof. Dr. Damrongsak Faroongsarng)

Dean of Graduate School

This is to certify that the work here submitted is the results of the candidate's own investigations. Due acknowledgement has been made by any assistance received.

……..……..…..... Signature

(Assoc. Prof. Dr. Wandee Suttharangsee)

Major Advisor

……..…... Signature

(Mr. Pichet Suwanchinda)

Candidate

I hereby certify that this work has not been accepted in substance for any degree, and is not being currently submitted in candidature for any degree.

……..…… Signature

(Mr. Pichet Suwanchinda)

Candidate

ชื่อวิทยานิพนธ์ การพัฒนาและประเมินคุณภาพของแบบประเมินความตั้งใจในการหลีกเลี่ยงยาเสพติดในวัยรุ่นไทย
ผู้เขียน นายพิเชษฐ์ สุวรรณจินดา
สาขาวิชา การพยาบาล (หลักสูตรนานาชาติ)
ปีการศึกษา 2561

บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์เพื่อพัฒนาและประเมินคุณภาพแบบประเมินความตั้งใจในการหลีกเลี่ยงยาเสพติดของวัยรุ่นไทยโดยมีการดำเนินการ 2 ระยะ คือ ระยะพัฒนาแบบประเมินและระยะประเมินคุณภาพแบบประเมิน 1) ระยะพัฒนาแบบประเมิน ประกอบด้วย 1.1) การวิเคราะห์แนวคิดที่เกี่ยวข้องกับความตั้งใจในการหลีกเลี่ยงยาเสพติด การทบทวนวรรณกรรมอย่างลึกซึ้งและการสัมภาษณ์จากวัยรุ่นไทย จำนวน 10 คน ผลการศึกษาพบองค์ประกอบความตั้งใจในการหลีกเลี่ยงยาเสพติด 3 องค์ประกอบ คือ การต้องการในการหลีกเลี่ยงยาเสพติด ความมุ่งมั่นในการหลีกเลี่ยงยาเสพติดและความเต็มใจในการหลีกเลี่ยงยาเสพติด 1.2) การพัฒนาชุดข้อคำถาม ได้ข้อคำถามจำนวน 75 ข้อ และ 1.3) กำหนดลักษณะของคำตอบเป็นมาตราประมาณค่าแบบลิเคิร์ท (Likert-like scale) 5 ระดับ 2) ระยะประเมินคุณภาพแบบประเมิน ประกอบด้วย 2.1) การตรวจสอบความตรงเชิงเนื้อหาโดยผู้เชี่ยวชาญ 5 คน ได้เสนอแนะให้ปรับลดและรวมข้อคำถามเหลือจำนวนข้อคำถาม 27 ข้อ ได้ค่าดัชนีความตรงเชิงเนื้อหารายข้อ 1.00 และค่าดัชนีความตรงเชิงเนื้อหาของแบบประเมินทั้งชุด เท่ากับ 1.00 2.2) การทดสอบคุณภาพเบื้องต้นกับวัยรุ่นไทย จำนวน 30 คน พบว่า ความสอดคล้องภายในของข้อคำถามทั้งชุดอยู่ในระดับสูง (α = .87) 2.3) การทดสอบภาคสนาม ประกอบด้วย 2.3.1) การวิเคราะห์เชิงโครงสร้างของแบบประเมิน โดยใช้การวิเคราะห์องค์ประกอบเชิงสำรวจ ศึกษาในวัยรุ่น 369 คน จากโรงเรียนระดับมัธยมศึกษาใน 6 ภูมิภาคของประเทศไทย 2.3.2) การใช้เทคนิคกลุ่มรู้ชัดโดยศึกษาในวัยรุ่น 60 คน แบ่งเป็น 2 กลุ่ม ได้แก่ กลุ่มวัยรุ่นที่ไม่ใช้ยาเสพติดจำนวน 30 คนและกลุ่มวัยรุ่นที่ใช้ยาเสพติดจำนวน 30 คน และ 2.3.3) การทดสอบซ้ำ ในกลุ่มวัยรุ่นจำนวน 30 คน ผลการวิจัย พบว่า การตรวจสอบคุณภาพเครื่องมือของแบบประเมินฉบับล่าสุดประกอบด้วยข้อคำถามจำนวน 22 ข้อ แบ่งเป็น 2 องค์ประกอบ คือ ความต้องการและความปรารถนาในการหลีกเลี่ยงยาเสพติด จำนวน 15 ข้อ ความมุ่งมั่นในการหลีกเลี่ยงยาเสพติดจำนวน 7 ข้อ อธิบายความแปรปรวน ทั้ง 2 องค์ประกอบ เท่ากับร้อยละ 54.99 และแต่ละองค์ประกอบอยู่ในช่วง ร้อยละ 10.73-42.26 ค่าไอเกน อยู่ในช่วง 2.36–9.74 และน้ำหนักองค์ประกอบ อยู่ในช่วง .54-.86 โดยแบบประเมินมีค่าสัมประสิทธิ์แอลฟ่าของครอนบาคทั้งชุด เท่ากับ .94 และรายด้านอยู่ในช่วง .86-.93

สำหรับผลการหาความตรงโดยใช้เทคนิคการรู้ชัด พบว่า มีความแตกต่างของความตั้งใจในการหลีกเลี่ยงยาเสพติดของกลุ่มวัยรุ่นที่ไม่ใช้ยาเสพติดและกลุ่มวัยรุ่นที่ใช้ยาเสพติดอย่างมีนัยสำคัญทางสถิติ (z = -6.45, p = <.05) ผลความคงที่ โดยการทดสอบซ้ำ พบว่า มีความคงที่ในระดับสูง (r = .77, p = <.01)

จากการศึกษา พบว่า แบบประเมินความตั้งใจในการหลีกเลี่ยงยาเสพติดของวัยรุ่นไทย มีความเที่ยงและความตรงเพียงพอที่จะใช้ในการประเมินความตั้งใจในการหลีกเลี่ยงยาเสพติดซึ่งน่าจะเป็นประโยชน์สำหรับนักวิจัยและผู้สนใจในการนำไปประยุกต์ใช้ต่อไป

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Author Mr.Pichet Suwanchinda

Major Program Nursing (International Program)

Academic Year 2018

ABSTRACT

The purpose of this study was to develop and evaluate psychometric properties of "Intention to Drugs Avoidance Scale (IDAS)" for Thai Adolescents. This study was divided into two phases: 1) development of the IDAS, and 2) psychometric evaluation. The development of the IDAS process consisted of; 1.1) determination of content domain, this step was composed of the extensive review of literature, concept analysis, and individual interview related to drugs avoidance in adolescents. The preliminary result revealed three components: desire to stay from drugs and to not take drugs, commitment to stay away from drugs and to not take drugs, and willingness to stay away from drugs and to not take drugs, 1.2) item generation, a large item pool was developed for each component, and the total number in the initial item pool was 75 items, and 1.3) the scale format of IDAS was identified using 5 points Likert-like scale, 2) psychometric evaluation consisted of; 2.1) determination of the CVI by 5 experts, some items were revised and deleted, the results showed that the scale consisted of 27 items with the item-level content validity (I-CVI) as 1.00, and scale-level content validity index (S-CVI) as 1.00, 2.2) pre-testing, the 27 items of IDAS was used to perform the pre-testing with 30 adolescents.

The whole set of items gained high internal consistency (α = .87), 2.3) field testing consisted of: 2.3.1) exploratory factors analysis, the IDAS was distributed to 369 Thai adolescents from six regions of Thailand, 2.3.2) known group technique, a sample of 60 adolescents (30 for each group). The first group was exposed to drugs and use drugs, and the second group did not use drugs, 2.3.3) test-retest with a sample of 30 students in high school. The results showed the final version of the 22 items of IDAS. Two factors of IDAS were desire and commitment to avoid drugs (15 items), and readiness to avoid drugs (7 items). It accounted for 54.99% of the total variance, and variance of the two factors was 10.73-42.26 with eigenvalue ranged from 2.36-9.74, and factors loading ranged from .54-.86. There was a significantly difference between adolescents who used drugs and not use drugs (z = -6.45, p = <.01). It also showed the Cronbach's alpha coefficient as internal consistency yielded the value of .94, and the alphas of two factors ranged from .86-.93, the stability demonstrated a high-level correlation between time 1 and time 2 (r = .77, p = < .01).

The result revealed that the IDAS for Thai adolescents had a valid and reliable property for evaluating the intention to drug avoidance for Thai adolescents. It should be beneficial for researchers and health care providers in using this tool in the future.

ACKNOWLEDGMENTS

It gives me immense pleasure to acknowledge all those who have helped me in the one way or other in accomplishment of my research successful. Many people have helped me complete my dissertation and doctoral program. Therefore, I have many people thank for their help.

First, I would like to thank my advisor and my co-advisor Assoc. Prof. Dr. Wandee Suttharangsee and Assist. Prof. Dr. Vineekarn Kongsuwan for all help, guidance, and direction in creating this project and for originally allowing me to work with them to contribute the most to my proposal development of my period as a Ph.D. Student, also her kindness, patience.

My great appreciation extends to Faculty of Nursing for their support and resources and Graduate School for direct finding this research.

I also would like to address my acknowledgment to the last Dean of Faculty of Nursing, Prince of Songkla University, Assoc. Prof. Dr. Aranya Chaowalit. A special thanks also for all guidance, empowerment, motivation in this study.

My deepest gratitude also addressed to all research assistants, adolescents, and their family at every data collection sites who graciously agreed to participate in this study, without their contribution this study would not be accomplished.

And finally to my family, my wife who give financial help and has stayed with me through this doctoral program. I thank you for being a friend in discouragement feeling and always here for me.

Pichet Suwanchinda

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CHAPTER 1

INTRODUCTION

Background and significance of the study

Adolescence remains an exciting period of transition in the life cycle of humans as it provides for a period of expanded growth just after childhood. During adolescence, young people are opened to the possibility of identity formation, self-exploring, spiritual growth and becoming independence from adults. As young people mature from childhood to adulthood, they experience remarkable physical, behavioral, social, and spiritual changes. The spiritual development of adolescents usually follows not individual, but as part of the developmental process (American Psychological Association [APA], 2002). Therefore, adolescence, as a critical period in the journey of life, brings forth an opportunity for timely intervention to prevent critical life patterns, and to promote continuing healthy ways and spiritual values (Akpanessien, 2015). Whether or not adolescent begins into adulthood as a healthy, self-directed individual can depend upon the opportunities obtainable to develop positive attitudes and life skills. The transitional period can transport problems of individuality and self-identity; several adolescents and their peers face powerful decisions regarding school assignment, sexuality, substance, alcohol, and social activity (Albert, Chein, & Steinberg, 2013). Peer groups are an important factor influencing the adolescent lifestyle toward the journey to adulthood (Zimmer-Gembeck & Skinner, 2015), in particular, health issues such as substance abuse, aggressive behaviors, and sexual misconduct.

Drug or substance abuse is measured as a dangerous health-related social and economic problematic in most countries. It is prevalent globally with an estimated 120 million users of substance such as methamphetamine, cocaine, heroin, and other synthetic drugs (World Health Organization [WHO], 2015). Substance abuse, according to WHO (2015), includes the use of alcohol, tobacco, and other illicit drugs, illegal, alcohol and tobacco are legal worldwide however there is an age restriction on the use of them. The Thai Office of the Narcotics Control Board (2015) has recently reported in 2012-2014 that there were 1.67, 1.72, and 1.85 million drug consumers in Thailand. Long term misuse of drugs can result in dopamine imbalance in neurotransmitters, which can result in severe psychiatric or mood disorders as well as psychosis, paranoia disorder, violent behavior, depression disorders, and cardiopulmonary damage (Degenhardt et al., 2016; McKetin, Dawe, et al., 2016; McKetin, Gardner, et al., 2016). It was also found that drug use has been related to many harmful outcomes for adolescences, families, and publics (Bachman et al., 2008; Hingson & Wenxing, 2009). In a particular, adolescent drug abuse and delinquency in Thailand are growing concerns (Assanangkornchai, Saingam, Apakupakul, & Edwards, 2016). The 2014 report of Youth Risk Behavior Surveillance among youth and young adults indicated that substance misuse behavior contributes to injuries, violence, sexually transmitted diseases and physical inactivity (McKetin et al., 2016; Schulte & Hser, 2014). Therefore, substance abuse could be concluded as unhealthy behaviors that need to be treated/solved in both policies and at a practical level.

Thailand has implemented the policy to suppress illicit opium, amphetamine, and other substance production, and the government has focused law

enforcement measures on suppressing drug traffickers and smugglers in communities, villages and in borderline areas to reduce drug supply into the country (United Nations Office on Drugs and Crime [UNODC], 2013). Furthermore, the government has set up treatment for drug users/drug addicts in order to decrease the demand for substances in the country (UNODC, 2013). It is a key for health teams including nurses to figure out ways to prevent drug abuse among adolescents.

From health behavior theories such as planned behavior theory, health belief model, reasoned action, social cognitive theory, transtheoretical model, and precaution adoption process model, the intention is an intermediate variable leading to any health behaviors. Research also showed that the intention was a high related and stronger prediction factor for substance uses (Eslami et al., 2014). Ongoing substance relapse statistics show that over 85% of people relapse and come back to drug use in the year next treatment. Investigators estimate that more than 2/3 of people in recovery relapse within weeks to months of start habit treatment (Sinha, 2011). In contrast, the person who had intention and self-efficacy for prevention in methamphetamine and other drugs are significant in low relapse rate (Panchabuse & Saengduenchai, 2014; Totharong, Limprasutr, & Wannapornsiri, 2008). As mentioned above, the intention is very important to make a person stop or not interfere with drugs.

The socio-cultural context is acceptable as another important contributor for relapse (Becker, McClellan, & Reed, 2016). From the review, there are several causes of drug abuse among adolescents including into five categories consisting of; 1) the individual characteristics (Executive Office of Health and Human Services [EOHHS], 2017; Nebhinani, Nebhinani, Misra, & Grewal, 2013), 2) peers (Goliath & Pretorius, 2016; Lopez et al., 2009; Martin-Storey et al., 2011; Pramong , Kongthong , Sreharun,

& Sujieenapong, 2014; Schwinn, Schinke, Hopkins, & Thom, 2016), 3) the family (Cleveland, Feinberg, Bontempo, & Greenberg, 2008; Pramong et al., 2014), 4) the community (Cleveland et al., 2008; EOHHS, 2017; Medina-Mora & Real, 2013; Pramong et al., 2014), and 5) school (Cleveland et al., 2008; EOHHS, 2017; Feinberg, Jones, Greenberg, Osgood, & Bontempo, 2015; Jessor, Van Den Bos, Costa, & Turbin, 1995; Lane, Gerstein, Huang, & Wright, 2001; Lopez et al., 2009; Pramong et al., 2014; Spooner, Hall, & Lynskey, 2001).

Preventing substance use disorders and connected issues in youngsters, adolescents, and young adults is important to activity and physical health. The classic categories of prevention include primary prevention aiming to avoid disease or damage before it ever occurs, secondary prevention with a goal to decrease the impact disease or damage that has already occurred, and tertiary prevention, as the control relapsing of diseases to prevent more severe problems (National Institutes of Health [NIH], 2017). Behaviors and symptoms that signal the growth of a behavioral disorder often manifest two to four years before a disorder is occurred (NIH, 2017). In addition, persons with a mental health problem are more likely to use substance, and other synthetic drug, which become the leading causes of death in the world. However, substance misuse behaviors are modifiable and prevention efforts are acceptable that it could make a difference to reduce these deaths (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014). Compared to the treatment, prevention is more benefit in term of time-saving, effectiveness, and financial benefits. The behavior intentions to avoid drug abuse would performance as a protective factor for avoiding substance abuse among youths as well as avoiding other high-risk situations (Allahverdipour et al., 2007).

Sheeran (2002) conducted a meta-analysis of prospective tests of the intention-behavior relation. Across 422 studies connecting 82,107 samples, intentions accounted for an average of 28% of the variance in behavior. This is a 'large' effect size according to Cohen's (1992) power primer and suggests that intentions are 'good' predictors of behavior. However, Sheeran's (2002) meta-analysis does not address whether changes in intentions predict changes in behavior. Webb and Sheeran (2006) performed a meta-analysis of 47 experimental studies to demonstrate that a medium-to-large-sized change in intentions led to a small-to-medium-sized change in behavior. This suggests that intentions do influence behavior, but that intentional control of behavior is more incomplete than previous meta-analyses of correlational studies have suggested (Prestwich et al., 2015). Most of the intention scales generally measure only the direction and intensity of people's motivation to act. Cooke and Sheeran (2004) have suggested that to strengthen intention measure there is a need to consider other properties such as temporal, stability, accessibility, and certainty.

Within the drug addiction area of study, there also is strong evidence supporting the relationship between intention and actual behaviors for example, self-efficacy, behavioral expectancies, whereas perceived behavioral control also influenced the relationship between intention and action (Lippke, Wiedeman, Ziegelmann, Reuter, & Schwarzer, 2009; Schutz & Kaiser, 2012; Webb & Sheeran, 2006). According to the study of Allahverdipour, Farhadinasab, Galeeiha, and Mirzaee (2007), behavioral intention to avoid drug abuse works as a protective factor among adolescents. The study also found that that peer resistance skills, a negative attitude toward drugs, perceived self-efficacy, and high self-control were four predictors on intention against drug abuse.

To prevent adolescents from using drugs, health providers should increase adolescents' intention of drug avoidance. The study of Bashirian, Hidarnia, Allahverdipour, and Hajizadeh (2012), found the theory-based substance abuse prevention program for adolescents, including attitude, subjective norms, perceived behavioral control which can significantly decrease intention to use drugs. Therefore, it is of interest to have a qualified intention measure since the intention is a personal attribute affected by beliefs, attitudes, and subjective norms (Ajzen, 1991). Social and cultural contexts should be considered for developing a tool. To be able to construct good properties of the measure, it is also important to understand the meaning related to drug use, drug avoidance, etc. in order to have good attributes of the scale.

From the literature review, the scales related to intention most focused on intention to treatment (Texas Christian University Motivational Assessment Scales [TCU], The Circumstances Motivation Readiness and Suitability Scale [CMRS], treatment progress (The Drug Avoidance Self-Efficacy Scale [DASES], The Adolescent Substance Abuse Goal Commitment questionnaire [ASAGC]), and readiness to change (The Readiness to Change Questionnaire [RTCQ], Stages of Change Readiness and Treatment Eagerness Scale [SOCRATES]), and the scales are mostly developed under the context of a western society (De Leon & Jainchill, 1986; Kaminer, Ohannessian, McKay, & Bueke, 2016; Martin, Wilkinson, & Poulos, 1995; Miller & Tonigan, 1996; Rollnick, Heather, Gold, & Hall, 1992; Simpson & Chatham, 1995), which may not be able to capture the Thai context that is different from Western context (Qingxue, 2003; Sanchez-Burks et al., 2003; Yuenyong & Yuenyong, 2012). Therefore, there is a need to develop and evaluate the psychometric properties of intention to avoid drug abuse scale for Thai adolescents in general.

Objectives of the study

1. To develop the Intention to Drug Avoidance Scale (IDAS) for Thai Adolescents.

2. To evaluate the psychometric properties of the Intention to Drug Avoidance Scale (IDAS) for Thai Adolescents.

Research Questions

1. What are the appropriate components of the Intention to Drug Avoidance Scale (IDAS) for Thai Adolescents?

2. How valid and reliable is the Intention to Drug Avoidance Scale (IDAS) for Thai Adolescents?

Conceptual Framework

The conceptual framework of this study was built upon the concept analysis of intention to drug avoidance, the literature review of drug avoidance and individual interviews. The concept of intention to drug avoidance with a review of the literature was used as a guide to develop key questions for conducting the interviews of the study.

For the avoidance concept, it can be defined as an act of keeping away from or preventing from happening (The Free Dictionary, 2017; WHO, 2015), an action of emptying, vacating, or clearing away (Merriam Webster, 2017), an escape from

the consequences of a specific course of action through the use of legally acceptable means (Cambridge Dictionary, 2017).

Avoidance learning is the method by that an individual learns a behavior or response to avoid a disagreeable or unpleasant condition. The behavior is to escape or to remove oneself from the high risk situation. For drug avoidance in adolescence, adolescents need to learn which people, places, and things stimulate the desire for drugs and how to either avoid or cope with them (Suwanchinda, Suttharungsee, & Kongsuwan, 2018).

From the concept analysis by the researcher, intention of drug avoidance is a person's desire or commitment to be away from drug use through various strategies. The attributes are; 1) desire to consider deeply the action to keep away from drugs, 2) commitment to act as the adolescent has planned even when facing difficulty, and 3) willingness to stay away from situations and people likely to lead to drug abuse.

From the reviews of the literature of drug avoidance in adolescence (Alhyas et al., 2015; Bellack, Bennett, & Dearon, 2006; Bjarnason & Jonsson, 2005; Chagphimai & Sritanasal, 2012; Lipari, 2014; NIDA, 2017; SAMHSA, 2017; Sukhawaha & Kanato, 2014; WHO, 2013), The findings composed of two components as follows: 1 (to stay away from drugs, such as limit negative influences and drug free environment, and 2 (to not take drugs, such as just say "No", set and work toward goal, and manage stress and risk situation.

From the individual interviews, the finding of intention of drug avoidance composed of 7 components as follows; 1) self-awareness and self-motivation to avoid drugs include: setting individual goals to avoid drugs, self-restraining to not use drugs, and inspiration and knows how to make goals to, 2) commitment to avoid drug,

commitment to not use drugs, although there have problems or high-risk situations, 3) managing internal and external drugs triggers, 4) perception of drug harm, 5) attitude being prepared readiness to stay away from drug, 6) knowledge preparedness, and 7) social responsibility.

The concept analysis, reviews of the literature and individual interviews were integrated to develop the domain for the intention to avoid drug abuse scale as follows; 1) desire to stay away from drugs and to not taken drugs including; setting individual goals to avoid drugs, motivation to accomplish goal and self-control to stay away from drugs and not taken drugs, 2) commitment to stay away from drugs and to not taken drugs including; commitment to stay away from drug and not taken drugs although there have high-risk situations, and commitment to stay away from drug by manage drugs triggers, and 3) willingness to stay away from drugs and to not taken drugs including; readiness to avoid and not to be involved with drugs, sense of social responsibility, and adequate knowledge related to drug (Figure 1).

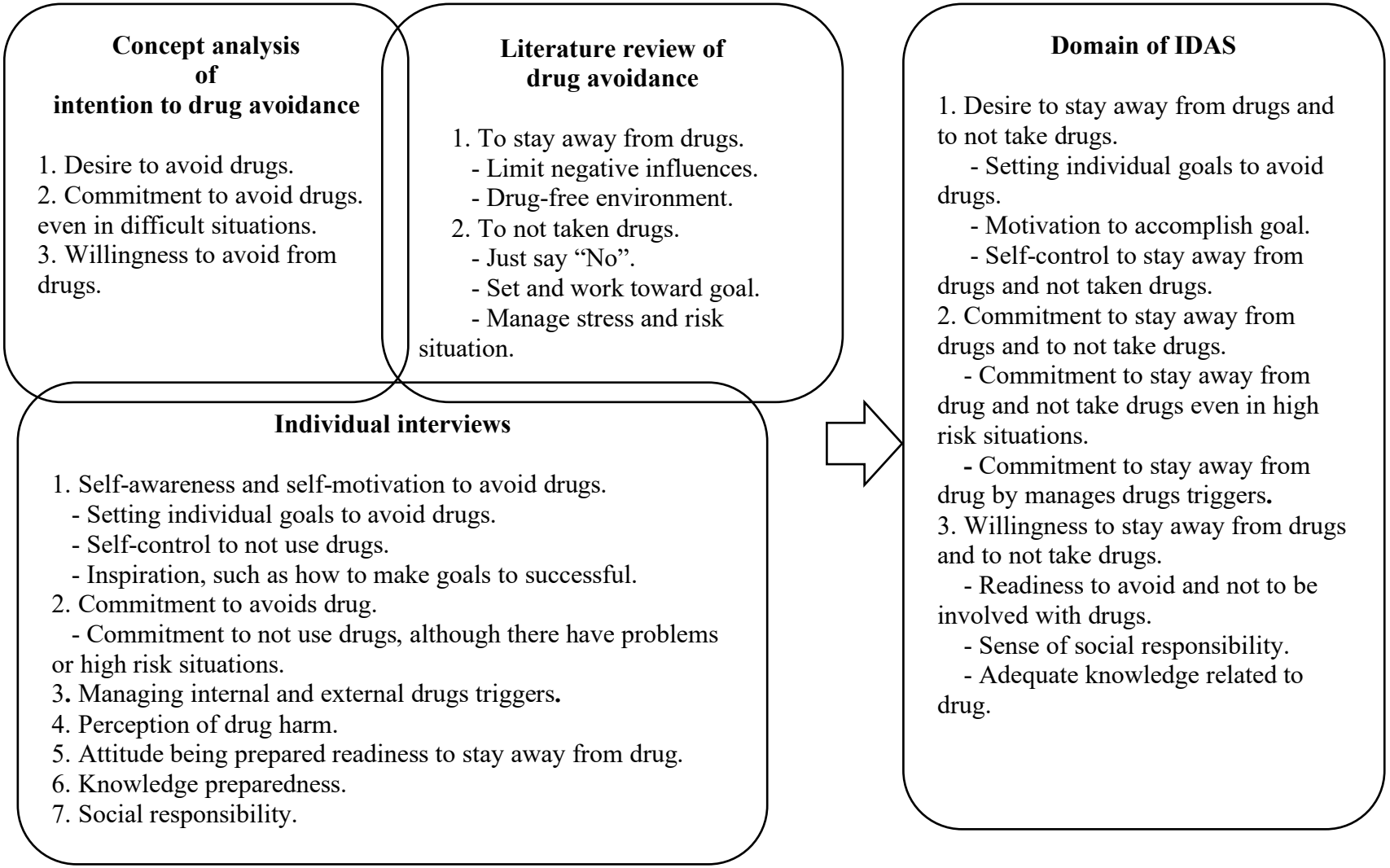

Figure 1 *The Domain of Intention to Drugs Avoidance*

Measurement framework

The measurement framework in this study was the important key guiding the research design and interpretation of the measurement. To construct an intention to avoid drug abuse, a norm-referenced framework will be used in this study. The framework was used for evaluating the implementation of a subject relative to the performance of other subjects in some well-defined comparison or norm group. This framework was normally utilized to construct an instrument or a technique to measure a specific characteristic which can maximally discriminate among subjects completely different amounts of the characteristic (Waltz, Strickland, & Lenz, 2005). Concerning a norm group, it is used to interpret the intention to avoid drug abuse score of an individual by comparing it with the scores of others. In constructing a norm-reference measure, steps are usually taken to maximize variability in the scores.

In sum, a concept of intention to drugs avoidance, the adolescent's intention and a norm-reference framework was the three main conceptual framework of this study. Intention to drugs avoidance content was defined from literature reviews, individual interviews, and concept analysis. The framework consisted of three aspects: desire to stay away from drugs and not taken drugs, commitment to stay away from drugs and not taken drugs, and willingness to stay away from drug and not taken drugs.

Definition of Terms

Intention to Drug Avoidance Scale (IDAS) for Thai adolescents is the scale aimed to measure the adolescent's self-assessment regarding his or her desire to be away from drugs or to not taken drugs. The Intention to Drug Avoidance Scale (IDAS) for Thai adolescents is developed from concept analysis, the literature review and individual interviews which consist of three components as outlined in the following:

1. Desire to stay away from drugs and to not taken drugs is adolescents' initiation to be away from drugs through setting up a clear goal, looking for a way to achieve one's goal and talking to himself or herself that he/she can succeed in being away from drugs if he/she focuses on the goal and self-control to stay away from drugs and not taken drugs.

2. Commitment to stay away from drugs and to not taken drugs is the devotion of adolescents to make a firm and deliberate decision refusing drugs before they are offered as well as self-management in being able to enjoy life and deal with its challenges and problems in healthful ways to stay away from drugs even in difficult situations and managing internal and external drugs triggers such as difficult situations that involve drug users, certain places and things and high-risk situations.

3. Willingness to stay away from drug and to not taken drugs is adolescents' readiness to avoid and not to be involved with drugs by associate with drug users, places and high-risk situations and attempting to stay away from drugs and not taken drugs, sense of social responsibility, and adequate knowledge related to drugs.

Significance of the study

This research study, in regards to both the specific component of the intention to avoid drugs and the instrument that has good psychometric properties, can be a valuable tool which may be applied in nursing education, nursing practice, and nursing research.

This study will offer a reliable and valid instrument. An understanding of the intention to avoid drug abuse among Thai adolescents is beneficial evidence for designing and implementing a program to promote and enhance the intention of drug avoidance in Thai adolescents. An intention to drug avoidance scale related to drug abuse problems is a useful tool for psychiatric nurses, health care professionals and researchers to assess in an adolescent's intention to avoid drug use. Educators can integrate intention to drug avoiding components into study lessons and the nursing curriculum in addition to the nursing knowledge as well as using it as a guide to assess a drug addicted adolescent's intention to quit drugs and to promote the avoidance of drug use.

Summary

The Intention to Drug Avoidance Scale (IDAS) related to drug abuse is a useful start for health care providers, educators or teachers to assess the intention to avoid drug abuse. Furthermore, there is currently no available tool suitable for Thai culture to fully capture the extent of a Thai adolescent's intention to avoid drug abuse. Therefore, the purpose of the study was to develop an instrument to evaluate and

assess the intention of drug avoidance and to evaluate the psychometric properties of a developed instrument to measure the intention of drug avoidance in Thai adolescents. Two research questions are raised; 1) what are the appropriate components for the Intention to Drug Avoidance Scale for Thai adolescents (IDAS)?, and 2) how valid and reliable is the Intention to Drug Avoidance Scale for Thai adolescents (IDAS)?.

The concept analysis, reviews of the literature and individual interviews were integrated to develop the domain for the intention to avoid drug abuse scale as follows: 1) desire to stay away from drugs and to not taken drugs includes; setting individual goals to avoid drugs, inspiration and knows how to make goals to successful, and self-control to stay away from drugs and not taken drugs, 2) commitment to stay away from drugs and to not taken drugs includes; commitment to stay away from drug and not taken drugs although there have high-risk situations, and commitment to managing internal and external drugs triggers, and 3) willingness to stay away from drugs and to not take drugs including; readiness to avoid and not to be involved with drugs, sense of social responsibility, and adequate knowledge related to drug.

CHAPTER 2

LITERATURE REVIEW

This chapter presents the state of knowledge on the measurement of the intention to drug avoidance. The purposes of this chapter are to describe the concept and conceptual structure of intention to drug avoidance among adolescents and to examine the existing intention to drug avoidance scales. The literature review is presented as follows:

1. Substance abuse and Thai adolescents
    1.1 Incidents of substance abuse in Thailand
    1.2 Risk and protective factors related to substance abuse in adolescents
2. Drug avoidance
    2.1 Definition of drug avoidance
    2.2 Components of drug avoidance in adolescence
        2.2.1 Staying away from drugs
        2.2.2 Not taking drugs
3. Intention
    3.1 Definition of intention
    3.2 Theory related to intention
4. Intention to drug avoidance
        4.1 Definition of intention to drug avoidance
        4.2 Attributes of intention to drug avoidance
        4.3 Factors related to intention to drug avoidance
5. Existing instruments related to intention to drug avoidance
6. Summary

1. Substance abuse and Thai adolescence

1.1 Incidents of substance abuse in Thailand

The United Nations defines adolescence as between the ages of 10-19 years. Thai adolescents number approximately 8,693,238, representing 13.25 % of the total population in 2015. Adolescents have relatively high prevalence rates of substance use (Johnston, O'Malley, Bachman, Miech, & Schulenberg, 2015). It is estimated that more than 1.7 million young people (aged 12-24 years) are involved in the use of drugs. Marijuana is the most prevalent drug in Thailand followed by methamphetamine (or amphetamine) and crystalline matrix amphetamine (ice). These three drug types are most popular among teens (United Nations Office on Drugs and Crime [UNODC], 2016). In Thailand, the average age of teen drug use is between 15-17 years old (Assumption University, ABAC Poll Research Center, 2011). A report from the Department of Juvenile Observation and Protection (2016) shows that during the period 2012-2015 methamphetamine accounted for 60% to 70% of the offenders involved in substance abuse, and many adolescents' in Thailand start using drugs before the age of 11 years old and 59% of all substance abuse are 15 years old. It was also found that the rate of adolescents using substances has increased from 19% in 2015 to 21% in 2016. Methamphetamine is a drug that is mostly used at 59%, cannabis use at 23%, and kratom at 4.17% (Ministry of Public Health [MPH], 2017).

According to the report in the treatment of substance use disorders, the total number of adolescents who have received treatment is 334,514 (MPH, 2017). The number of patients who received treatment at the Thanyarak Institute from the

years 2011 to 2015 showed a total increase from 6,436 to 7,127, 7,556, 8,117, and 9,715 cases respectively. The types of drugs abused are mostly methamphetamine, followed by alcohol, marijuana, and inhalants (MPH, 2017). It was found that patients who were receiving treatment incurred relapses two or more times in the years of 2012 to 2014 at the rate of 41.40%, 50.87%, and 47.81% respectively. The percentage of users aged between 15-39 years are categorized from the most to the least as follows: ages 15-19 (18.12%), 20-24 (17.86%), 30-34 (l7.63%), 25-29 (17.35%), and 35-39 years (11.44%) (PMNIDAT, 2017).

In general, adolescent drug abuse has long-term harmful social, behavioral and financial consequences (Bogart, Rebecca, Phyllis, & David, 2007; Espinoza et al., 2019). The previous adolescents the younger the age of an adolescent who begins using drugs, the greater his/her risk for future drug use problems begin using drugs, the greater their risk for future drug use problems (Chie et al., 2015). For example, Green and Ritter (2000) demonstrated that adults who used cannabis during puberty were more likely to use cannabis during adulthood. The abuse of alcohol and drugs in pre-adulthood is also linked with many harmful consequences, such as hazardous sexual behavior, inconveniences with the law, and suicide behaviors (Curry et al., 2012). Research has also found that if one starts using drugs at an early age this can cause permanent addiction (Mungkung, 2015). Adolescents in the education system are less likely to use drugs than those who are outside the education system (Johnston et al., 2015).

Substance abuse in adolescents is prevalent in both neighborhoods and colleges. In spite of the reality that alcohol use is illicit for anybody beneath the age of 21, 60% of western countries have a drinking age of 18 years old and illegal substance

use is illegal for everybody (Wagner & Austin, 2006-2007), 75 % of senior students in school have attempted alcohol at a few points during their lifetime, and 50% of them have attempted at least one illegal substance (Johnston, O'Malley, Bachman, & Schulenberg, 2012). While experimentation with cannabis and other substances may be standardizing in this formative period, young people who use cannabis and other substances run the chance of encountering negative results from their use of these substances. These negative results may show up later in life or maybe instantly, and be the coordinated result of the acute impacts of intoxication (e.g., car crashes, fights, and unwanted sexual encounters). Furthermore, a significant underground group of adolescents who use cannabis or other substances will encounter some problem with substance use disorder.

1.2 Risk and protective factors related to substance abuse in adolescents

Research shows that the risk for drugs abuse and other adverse performances increases as the number of risk factors increases, and that protective factors may decrease the risk of adolescence attractive in substance use (Lipari, 2013; Lipari, 2014; McWhirter, McWhirter, McWhirter, & McWhirter, 2013). The literature search on protective factors and the risk factors for adolescent drug use confirm that risk factors have been labeled as those factors that enhance the likelihood that a person will become involved in drug abuse or become dependent. These risk factors relate to the harmful effects or negative effects of the person (McWhirter et al., 2013). Protective factors, in contrast, refer to factors related to the potential for decline for drug abuse, or variables that reduce or barrier the personal property of risk factors.

These factors may be independent without corresponding risk factors or maybe more opposed to risk factors for more or less drug use (Liddle et al., 2006).

Risk and protective factors are categorized into five categories consisting of; 1) the individual characteristics (Executive Office of Health and Human Services [EOHHS], 2017; Nebhinani, Nebhinani, Misra, & Grewal, 2013), 2) peers (Goliath & Pretorius, 2016; Lopez et al., 2009; Martin-Storey et al., 2011; Pramong , Kongthong , Sreharun, & Sujieenapong, 2014; Schwinn, Schinke, Hopkins, & Thom, 2016), 3) the family (Cleveland, Feinberg, Bontempo, & Greenberg, 2008; Pramong et al., 2014), 4) the community (Cleveland et al., 2008; EOHHS, 2017; Medina-Mora & Real, 2012; Pramong et al., 2014), and 5) school (Cleveland et al., 2008; EOHHS, 2017; Feinberg, Jones, Greenberg, & Osgood, 2015; Jessor, Van Denos, Costa, & Turbin, 1995; Lane, Gerstein, Huang, & Wright, 2001; Lopez et al., 2009; Pramong et al., 2014; Spooner, Hall, & Lynskey, 2001).

1.2.1 Individual factors

Individual characteristics as a protective factor to prevent substance abuse in adolescence consist of; knowledge experience regarding risks related to drugs abuse/use (EOHHS, 2017; NIDA, 2017), negative attitudes toward substances and substance use (EOHHS, 2017; Nebhinani et al., 2013), connecting to pro-social society, constructive associations with adults, views parentages, educators, physicians, law administration officers, and other adults as partners (EOHHS, 2017), social competence (EOHHS, 2017; Guerrero, Dudovitz, Chung, Dosanjh, & Wong, 2016), adolescent participation in another actions, sense of well-being/self-confidence, and involves having good plans in the future (EOHHS, 2017), strong coping social skills, caring and cooperative nature, positive self-confidence, problem-

solving skills, sense of humor, strong goal, sense of commitment, religiosity or spirituality, and peer-refusal skills (National Council for Behavioral Health [NCBH], 2017).

Individual characteristics, on the other hand, have been related with adolescence drug ill use and abuse. Examples of these factors include childhood conduct disorder problems, personality, developmental delays, early use of substances, and social skills deficits (Connell, Gilreath, Aklin, & Brex, 2014; Wekerle et al., 2009), problems with self-esteem (Charles & Alexander, 2007; Currie, 2001; LaMarre, 2012; Ramsoomar, 2015), low awareness of the risk of drug use, impulsiveness, aggression, rebelliousness, poor in social skills, aggression, and separation (NCBH, 2017), and low self-efficacy (Collins & Carey, 2007), negative self-image, higher levels of stress, weaker coping skills, and lower levels of self-control (Goldberg, 2013; Kopak, 2014; Schinke, Schwinn, Hopkins, & Wahlstrom, 2016; Zapata Roblyer, Grzywacz, Cervantes, & Merten, 2015).

1.2.2 Peers

Peers as a protective factor to prevent substance abuse in adolescence consist of: complicate in drug free behaviors, friends dislike of alcohol and other substance use (EOHHS, 2017), awareness of strong drug free attitudes, and behavior with friends (Lane et al., 2001), association with peers who model conventional behavior, and the acceptance of conventional norms about drug use/positive peer support (Jessor et al., 1995), suitable managing styles, empathy, problem-solving skills, and an internal self-discipline (Schwinn, Schinke, Hopkins, & Thom, 2016; Spooner et al., 2001)

Peers, on the other hand, have also been identified as having the following risk factors for adolescent peer drug use :peers with a favorable attitude regarding drug use, peers who use drugs, peers who are generally risk-prone, peers with a relationship to a gang, and peer pressure (Alhyas et al., 2015; Karcher Brown & Elliott, 2004; Loxley, Toumbourou, & Stockwell, 2005; McNeece & DiNitto, 2013; Schinke et al., 2016), and alienation by prosocial peers (Falkowski, 2003).

1.2.3 Family

The family as a protective factor to prevent substance abuse in adolescence consist of: parents provide educational and social support opportunities in their children, parents can train children to handle conflict (Hawkins, Kosterman, Maguin, Catalano, & Arthur, 1997), parental observing with clear rules of behavior, and parent inclusion in their youngsters' lives, protected and steady household (Spooner et al., 2001), strong connections/attachments between kids and their families (Lane et al., 2001; Spooner et al., 2001), strong family norms and goodness, helpful, caring parents, and family agreement (Spooner et al., 2001), family members connections, consistency of; parenting, teaching is appreciated and encouraged and parentages are actively involved, stress-coping in a positive way, clear opportunities and bounds regarding alcohol and other drug use, inspires helpful relationships with caring adults beyond the immediate family, including decision making, and connecting of family members are backup and supporting each member (EOHHS, 2017).

On the other hand, drug use in adolescents is both straight and circuitously influenced by personal factors such as parent arrogances, parent supervising, bonding with parents and drug use of relations (Bahr, Hoffmann, &

Yang, 2005), low family financial status, family conflict, forced or poor parenting skills, neglect, sexual and physical abuse (Feldstein & Miller, 2006; Van Ryzin, Fosco, & Dishion, 2012), and parent-adolescent relationships (Alhyas et al., 2015).

1.2.4 Community

The community as a protective factor to prevent substance abuse in adolescence consists of; admission to maintenance facilities, public/social norms in contradiction of violence and drugs use, and public networking. Strong promises with pro-social organizations such as spiritual organizations or other public groups, strong cultural identity and cultural pride (Spooner et al., 2001), public spiritual structure, laws and rules are consistently enforced, peer and community pressure, rules and norms encourage non-use, the social control of crime, community service opportunities available for youth, available resources, and available inclusive risks focusing on plans (EOHHS, 2017).

The community, on the other hand, as a risk factor in drug use in adolescents consist of; neighborhood poverty, income disparity, norms, customs and policies that permit or promote drugs use, extreme economic deprivation, disorganization, isolation of characters from their cultures, and use messages in the media and in promoting a positive attitude about alcohol and drug use (NCBH, 2017).

1.2.5 School

School as a protective factor to prevent substance abuse in adolescence consists of; positive attitudes toward school (school connecting, regular school attending) (EOHHS, 2017; Jessor et al., 1995; Lane et al., 2001; Spooner et al., 2001), communication of high academic and behavioral expectations to students, encouragement of goal-setting, scholarly accomplishment and positive social

improvement (mentoring accessible, positive guidelines climate, gives authority, and choice making openings for understudies) (EOHHS, 2017; Spooner et al., 2001), effective connection of students, guardian and community memberships (EOHHS, 2017; Hawkins et al., 1997), sponsors substance-free events (EOHHS, 2017; Spooner et al., 2001), and the school is responsive to students' needs (EOHHS, 2017).

School factors as risk factors consist of the lacks of academic progress and success, commitment to school a negative environment, and the low or very high desire of employees/students (NCBH, 2017).

In sum, risk factors have been described as those factors that enhance the likelihood that a person will become involved in drug abuse or become dependent. Protective factors refer to factors related to the potential for decline for drug abuse, or variables that reduce or barrier the effects of risk factors. These factors may be independent without corresponding risk factors or maybe more opposed to risk factors for more or less drug use. Risk and protective factors are categorized into five categories consisting of; 1) the individual characteristics, 2) peers, 3) the family, 4) the community, and 5) school.

2. Drug avoidance

2.1 Definition of drug avoidance

The definition of drug avoidance refers to the plan to keep safely away from drugs/drug users and high-risk situations or as having desires, and attempting to avoid drug use.

For the avoidance concept, it can be defined as to act or the practice of refraining from indulging an appetite or desire, keep away from, not doing, depriving yourself of something, partially of something, temperance, keep clear of, the avoidance of excess, the practice of avoiding something, to make void or of no effect, self-restraint, self-control, self-repression, self-inhibition, self-denial, autogenic inhibition, autogenously suppression, or the forbearance from anything.

For drug avoidance, it can be defined as abstaining from an action which is known to be injurious and addictive. Responsibility this includes not taking a specific substance, escaping areas where this is likely to be on offer or adopting a healthier lifestyle.

2.2 Components of drug avoidance in adolescence

From the review of the literature of drug avoidance in adolescence, the findings of drug avoidance in adolescence are composed of two components as follows; 1) staying away from drugs, and 2) not taking drugs.

2.2.1 Staying away from drugs

Staying away from drugs is an adolescent's desire to not be involved with drugs, to avoid people, places, or things that will have a bad effect on the adolescent. Newton (2014) has proposed important concerns for those people who want to stay away from drugs as outlined in the following:

1. Drugs are hazardous to the physical body and mind. This is a proven fact, and for everyone to see this truth all they need to do is to investigate the lives of those who are controlled by the various forms of drugs that are prevalent in the world today.

2. Drugs are addictive. To permit yourself to become imprisoned by any form of drugs, even alcohol, is not a good thing. So do not permit the things which can destroy you, master you. Are doing not be misdirected into considering simply can handle it, it will be a most difficult thing to get them out. Save yourself the disturbance.

3. Take a look around you at who is involved in using drugs, look at their end, if you do not want your life to end in grief and misery.

4. Do not permit companions or anybody else to tell you that drugs are good or fun.

2.2.2 Not taking drugs

Not taking drugs is adolescents' awareness of substances and associated harm (Alhyas et al., 2015), perceived risks from substance use (Bjarnason & Jonsson, 2005; Lipari, 2014), and self-defense behaviors in regards to drugs (Chagphimai & Sritanasal, 2012).

Bjarnason and Jonsson's (2005) study looked at the different effects in perceived risks of drug use in adolescence. The perceptions of adolescents in high-risk situations related to use of a substance to reduce response rates, and suppressed estimates of perceived high risks of illegal substance use. Adolescents can generally perceive high-risk situations such as heavy use or regular use of drugs. However, they do not have the same level of perception in experimental substance use in regards to their lifestyle and having self-restraint.

According to Lipari's (2013) study of tendencies in teenage drug use and the awareness of high risk situations from drug use, the results showed that the percentages of teenagers showing drugs use in the past month were generally lower

among those who apparent great risk from using drugs than among adolescences those who did not perceive great risk.

Chagphimai and Sritanasal (2012) undertook a study of self-defense behaviors in regards to drug use in students at King Mongkut's University of Technology, North Bangkok. The results of the investigation on students' behaviors for self-defense against drug addiction showed that, overall, the respondents used mostly all strategies to avoid drug addiction. When examining item by item, the most employed behavior for self-defense against drug addiction, even though living in the area where drug addiction was prevalent, was never ever to try or expose oneself to drugs. The behaviors used in attempting to dodge utilizing drugs or denying drugs that were advertised by companions were; not wanting to upset or worry family individuals fear of dismissal by family individuals, fear of being captured by police, fear of losing their instructive opportunity and demolishing their future individually.

Chinakate's (2010) study looked at the factors affecting the preventive behavior towards drugs among the vocational certificate students in colleges under the provincial vocational education of Ratchaburi. The results of this study showed that preventative drug abuse behaviors were; personal factors, as follows, perception, life skills, and self-control. Family factors, as follows, the rearing of the family and the relationships in the family. Social factors that consisted of the social support received from the school, the perception of media releases about drugs and the social support received from friends. Self-control, life skills, and perception could predict the behavior of drug prevention in adolescents.

According to Sukhawaha and Kanato's (2014) study they looked at developing a drug abuse prevention model for adolescents which consisted of; 1)

knowledge on drug abuse in general, drug types and body effects, 2) skills in awareness, self-esteem, and respect, 3) establishing good relationships and effective communication, and 4) stress management. The model increased the effectiveness on drug abuse prevention.

SAMHSA (2017) and NIDA (2017) guidance to avoid substance abuse in adolescence included;

1. “Just say no”, the most understandable technique to stop a habit is to avoid substances and alcohol. But it is not continuously that basic since human lives are strengthened for pleasure-seeking and people will continuously seek rapid help from discomfort or pain. If the “just say no” approach has been unsuccessful at one time it will then stay to be only an incomplete answer to addiction prevention.

2. The negative effects of both adolescents and adults’ boundaries are heavily induced by their friends and the desire to fit. Associating with drugs or alcohol abuse or those who have acceptable attitudes toward drug abuse increases the likelihood of drug abuse.

3. The management of stress, stress is one high-risk situation that increases the reasons for drug abuse. Rather than strengthening out of control behavior, or managing stress or high-risk situations before problems get involve. Many activities can help to manage the triggers (e.g. bodybuilding, or talking to a friend).

4. Building strong connections, a strong support organization can be a strong self-protective factor to drug addict. Whether adolescents are open to friendship, family, the community or a higher power, finding someone that can help to decrease anxiety, depression or bad feelings.

5. Setting the objectives, persons who set sensible objects and efficiently work on them are less likely to be derailed by substance urges than persons who feel they are not achieving their objectives or do not have any objectives to continue working on.

3. Intention

3.1 Definition of intention

Intention refers to cognitive and motivational components (Davis, 1992), an intention has been labeled as a mental state which motivates action (Bratman, 1987), a goal-directed, action-like stat (Pink, 1991), an executive state having a plan component (Velleman, 2001), a person's level of readiness to perform the behavior of interest (Ajzen, 1998).

3.2 Theory related to intention

3.2.1 Theory of reasoned action (TRA)

The theory of reasoned action (TRA) model is based on three concepts namely behavioral intention, attitude and subjective norm. Attitude, also recognized as behavioral belief, consists of; beliefs about the outcome of the behavior and the appraisal of the consequence while subjective norms, also known as normative beliefs, are beliefs about others thought on the specified behavior and motivation to comply towards the behavior (Fishbein & Ajzen, 1975). In their

individual aggregates, behavioral beliefs produce a promising or disapproving attitude toward the behavior, while normative beliefs result in perceived social pressure to perform the behavior. The TRA also conceives that behavioral intention is an direct antecedent to behavior. Basically, behavioral intention is beliefs about the probability of accomplishment a specific behavior will principal to a specific outcome (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

3.2.2 Theory of planned behaviors (TPB)

Theory of planned behaviors is an once of theory that indicates human behavior. TPB is comparable to TRA in that it classifies an individual intentions as the strongest direct to actual behavior. Behavioral intention (BI) is influenced by 3 determinants: attitude toward the behavior (AB), subjective norm (SN), and perceived behavioral control (PBC) (Ajzen, 1987). Persons will be more likely to involve in behavior to the extent that they have a positive attitude toward those behaviors or they have a positive attitude toward the predictable result of that behavior. Subjective norm is a purpose of normative beliefs, which represent insights of specific noticeable others' favorites about whether one should or should not engage in a behavior (Metthew et al., 2009). The PBC refer to the individuals belief under her or his control as well as self-efficacy (Norman & Conner, 2017).

Attitude toward the behavior (AB) is a positive or negative assessment of that action. It can be assumed that the attitude towards behavior (AB) is an individual factor, if an individual believes that any behavior will be positively affected, there will tend to have a positive attitude towards that behavior. On the other hand, if there is a belief that doing behavior will receive negative results, there will

tend to have an attitude that is not good for the behavior, and when there is a positive attitude will be intent or intention to action that behavior.

Subjective norm (SN) is a person's perception that others who are important to their need or do not want there to do that behavior. If a person knows that someone who is important to there has done that behavior or want there to do that behavior will tend to conform and follow that behavior.

Perceived behavioral control (PBC) is an individual's perception that it is problematic or informal to do that behavior. If an individual believes have the ability to act in that situation, and can control to achieve the planned result, there tends to do that behavior.

Attitude toward behavior is conceptualized as a multidimensional develop comprising of cognition, influence, and conation (Ajzen, 1988). According to Manstead and Fischer (2001), attitude is a role of an individual's relevant behavioral beliefs; which characterize perceived likely consequences of the behavioral. Worldwide, attitude is the step to which the presentation of the behavior is absolutely or harmfully valued. Attitude reproduces an individual's beliefs concerning the behavior mutual with the value the person places on the consequence of accomplishment the behavior.

Normative beliefs are concerned with the probability that significant others would support or criticize of behavior, and motivation to comply is an assessment of how significant it is to have the approval of important others (Ajzen,1991).

Perceived behavioral control replicates an individual's beliefs as to how easy/hard it will be to achieve the behavior. The noticeable beliefs original the

construction of this concept are control beliefs, which include the individual's perceptions of capitals against barriers for attractive in the behavior .These beliefs are combined with the perceived power of each control influence to simplify/obstruct the behavior to form the complete PBC (Ajzen,1991).

In totaling to the antecedents specific to the three domain theory of planned behaviors concepts addressed above, distal influences may affect the beliefs that individuals hold about a particular behavior. These distal influences may include demographic characteristics, behavior traits, and social beliefs.

4. Intention to drug avoidance

4.1 Definition of intention to drug avoidance

The definition of intention to drug avoidance refers to the plan to keep safely away from drugs, drug users and high-risk situations or as having desires, and attempting to avoid drug use.

For the concept of intention, it can be defined as something that you want and plan to do or achieve and includes; intention simply signifies a course of action that one proposes (e.g. it is my purpose to avoid drugs), intent more strongly implies deliberateness: purpose stresses the wanted result of one’s actions or efforts and often implies a sense of dedication (e.g. I will try to live by study and will not interfere with drugs in the future to live happily), a goal is something fulfilling or rewarding that inspires a sustained endeavor (e.g. I hope not to interfere or be involved in a situation or event with drugs), aim pressures the way one’s efforts take in pursuit of something

(e.g. when I have stress I will find a way to handle it without messing about with drugs), an objective is a goal that one is assigned or motivated to achieve (e.g. my goal is to live without drugs).

4.2. Attributes of intention to drug avoidance

From the concept analysis by the researcher, the intention to drug avoidance is a person's desire or commitment to be away from drugs or to not use drugs through various strategies. The details of the attributes of the intention to drug avoidance are explained as follows; self-motivation to stay away from drugs, commitment to stay away from drugs even in high-risk situations, willingness to stay away from drugs, self-motivation to not take drugs, commitment to not take drugs even in difficult situations, and willingness to not take drugs (Suwanchinda, Suttarangsee, & Kongsuwan, 2018).

4.2.1 Self-awareness and self-motivation to avoid drugs

Self-awareness is the skill to prove an sympathetic of how inherent and/or developed behavior traits, and physiognomies donate to individual and professional success (Duval & Wicklund, 1972).

Self-motivation is the initiative to assume or stay mission or activity deprived of additional prodding or supervising. Self-motivation is multifaceted. It is correlated to one's level of inventiveness in setting interesting goals for oneself, it is a trust that you have the abilities and capabilities desired to accomplish those goals, and it is the desire that if person put in sufficient difficult effort, there will accomplished

(or at the slightest be within the successively, in case it may be a inexpensive circumstance).

Self-awareness and motivation to avoid drugs, the force that drives people to do or the action to keep away from drugs or to not take drugs including;

1. Individual drive to accomplish, the wish to recover or to meet confident values.

2. Initiative, which in adolescence is distinct as ‘readiness to act on occasions.

3. Hopefulness, the aptitude to keep going and follow goals in the face of setbacks.

The factors that are necessary to build the self-motivation are self-confidence and self-efficacy, positive intelligent, focus and strong objectives, and a motivational situation (Dema, 2017).

1. Self-confidence and self-efficacy

Bandura (1994) described self-efficacy as a “belief in our own ability to succeed, and our ability to achieve the goals we set for ourselves. This belief has a huge impact on people’s approach to goal setting and people’s behavioral choices as people work toward those goals” (p. 2).

According to Bandura's study, self-efficacy outcomes in a competence to view hard objectives as an experiment, while persons with low self-efficacy would likely view the same goals as being beyond their abilities, and might not even attempt to achieve them. It also contributes to how much exertion a individual puts into a goal in the first place, and how much person persists despite hindrances (Bandura, 1994).

By increasing an overall level of self-confidence in self-motivation, adolescents will only have confidence in succeeding, but they will also identify and appreciate the accomplishments they have previously had. That, in turn, will stimulate them to build on those achievements.

2. Positive thinking

Positive thinking is correlated to self-confidence as an influence in self-motivation (Manktelow, 2006). When things are not going as deliberate and people are ready to give up. If people think that things are successful to go wrong or that people will not succeed, this may influence things in such a way that people's forecasts will come true. This is especially if they essential to effort firm to achieve victory. Contemplations can have a major impact on whether one succeeds or fails, so one needs to make sure those considerations are "on your side".

3. Attention and strong goals

Attention and strong goals for building the achievement of self-motivation is to turn to set strong goals. Focusing on the objective, having a clear sense of course, and self-confidence comes from recognizing what one has achieved. Individuals should determine their direction in a successful objective setting. When people set a goal, they make a promise to themselves. In addition, it is a challenge for people to commit themselves to reach their goals. Part of the strength of this is that it gives them a clear objective. They make a promise to themselves, and they will need to keep this promise (Manktelow, 2006).

4. Self-motivating

The self-motivation is encompassing oneself with individuals and assets that will remind the individual of his/her objectives and to support inner

inspiration. These are outside components that will offer assistance as individuals get persuaded from the exterior, which is distinctive from the inner inspiration (Manktelow, 2006).

The skills complicated in self-motivation (Manktelow, 2006).

1. Setting high but realistic goals.
2. Taking the right level of risk.
3. Seeking constant feedback to work out how to improve.
4. Being committed to personal or organizational goals and going the ‘extra mile ’to achieve them.
5. Actively looking for chances and grabbing them when they occur.
6. Being able to contract with hindrances and continuing to follow goals despite problems.

Allahverdipour’s et al. (2007) study of behavior intention to avoid drug abuse works as a protective factor among adolescents explains the intention to avoid drugs as having protective factors such as peer resistance skills, harmful attitude toward drugs, supposed self-efficacy, and high self-discipline. These four factors are the predictors in predicting intention to drug use or substance abuse. Furthermore, students’ informative status, interest in school and truancy, and investing time with friends were other predictors for intent in the contradiction of substance misuse.

4.2.2 Commitment to avoid drugs

Commitment is something that people must do or deal with that takes one ’s time, is a strong belief in an awareness or knowledge, is something which

regularly takes up some of person time because of an agreement people have made or because of responsibilities that people have (Collinsdictionary, 2017).

The commitment to stay away from drugs even in difficult situations is an adolescent' s desire to make a firm and deliberate decision refusing drugs before they are offered and having self-management in being able to appreciate life and deal with its challenges and difficulties in healthful habits to stay away from drugs even in difficult situations.

According to San Leandro Unified School (2017), the commitment to be drug free consists of; 1) the first step in staying drug free is to make a firm and deliberate decision, 2) the only way to avoid the pitfalls and hazards of drugs abuse is to be fully committed to refusing drugs before they are offered, 3) being drug free means being able to enjoy lifespan and deal with its challenges and difficulties in healthful ways, and 4) it also shows the strength of your values and demonstrates good character and respect for yourself and others.

According to Conner (2010), the commitment model can identify the level of commitment an individual or group presently displays toward an exact change plan and recommends what stages might be taken to move persons to a higher level of commitment to that change. The commitment model consists of the following stages;

Stage I: Interaction is the primary meeting persons have with the detail that a modification is taking place in the self that will need them to shift their behavior and/or thinking. In any case of the strategy, this to begin with organizing within the commitment handle is expecting to result in consciousness that a transformation has taken place or may occur within the future.

Stage II: Awareness of change is recognized effectively when a person understands that the changes moving them have happened or incomplete.

Stage III: Understand the change, people appear to have a few degrees of comprehension of the nature and determination of the change and what it may mean for them.

Stage IV: Optimistic awareness, individuals choose whether to provision or oppose the adjustment. The starting of belief about modification is not done in separation as persons characteristically weigh the charges and assistances of the change against the costs and benefits of other alternatives, including doing nothing. Ideally, the benefits of a change to an individual so clearly outweigh the benefits of any alternative course of action that it requires little thought to decide to move forward.

Stage V: Experimentation, persons take act to test a modification. This is the primary period individuals really try out the modification and obtain a sense of how it might affect their work routine. This phase is an significant sign that promise structure has started, though better provision is possible.

Stage VI: Adoption is reached after individuals have positively circumnavigated the original trial period. The subtleties here are alike to that of the experimentation phase. The differences between the experimentation and adoption stages are important, even though their dynamics are similar. Experimentation focuses on initial, entry problems, and adoption centers on in-depth longer-term problems.

4.2.3 Willingness to avoid drugs

Willingness can be characterized as being energetically compliant. It implies doing something out of choice and not of restraint. When people become

willing to do something, it means their minds have gotten to be more open and responsive. They may consider doing things that in the past may have shown up as objectionable.

According to the prototype/willingness model, willingness is distinguished from behaviors intention in two primary ways. First, willingness is less thoughtful. Unlike intention, which involves consideration and evaluation of the potential outcome associated with a particular behavior (Fishbein & Ajzen, 1975), willingness to engage in risk behaviors is a reaction to risk conducive situations and therefore, involves relatively little precontemplation or consideration of the behavior of the potential negative consequences associated with it. The second distinction between willingness and intention is that willingness involves less internal attributes of responsibility for the behaviors or its attendant consequences.

To imprisonment this accidental, sensitive factor of dangerous performance, Gibbons and Gerrard (1995) created the concept of behavioral willingness, which they describe as honesty to risk chance specific individual would be willing to do under some conditions. To measure behavioral willingness, risk-advantageous conditions are described, along with the qualifier that no expectations are being made about whether the defendant would ever be in these types of situations. The intent is to avoid indirect internal attribution or “blame”. After telling the situation, a series of possible responses is described, which increase in the level of risk. The combined whole provides an valuation of what types of dangerous behavior the respondent has accomplished in his/her performance.

Behavioral willingness is extremely connected with intention, but still reliably describes additional amounts of variance in action behavior from 2% to >

10% (Gibbons, Gerrard, & Lane, 2003). Furthermore, as power be predictable, behavior willingness is typically recovered predictor than the intention to health probability behavior for youths (Gerrard, Gibbons, Stock, Houlihan, & Dykstra, 2006; Gibbons et al., 2004; Gibbons, Gerrard, Ouellette, & Burzette, 1998).

4.3 Factors related to intention to drug avoidance

In a substance abuse prevention study, it would be beneficial to identify cognitive connected reasons, such as awareness, knowledge, and attitudes to predict intention (MacKinnon et al., 2001). Theories describe behavior and recommended behaviors to accomplish performance change, supports describe and categorize why a problem exists and also predicts behaviors under situations and guide the search for adaptable influences like awareness and attitudes (Glanz et al., 2008). A comprehensive literature review showed that the theory of planned behavior (TPB) has been used to predict intention to avoid drugs use among adolescents (Allahverdipour et al., 2007), and there are various factors related to intention to drug avoidance and these consist of; negative attitudes toward substances, peer resistance skills, perceived self-efficacy, and high self-control (Allahverdipour et al., 2007; Chang, Yen, & Campbell-Heider, 2012; Chong & Lopez, 2015; Ellison et al., 2016; Engel et al., 2016; Mistry et al., 2015).

Although researchers have to study the risk issues and correlates of the abuse of drugs among adolescents, many issues remain about how to decrease and change this intention or improve protective behaviors. Therefore, it is essential to understand the many factors that reason this (Tonglet, Phillips, & Read, 2004). The

following section explains the factors related to intention to drug avoidance consisting of; 1) knowledge, 2) peer resistance skills, 3) attitude, negative attitudes toward substances, 4) perceived self-efficacy, and 5) high self-control.

4.3.1 Knowledge

Knowledge of drugs affects drug avoidance. Regarding the study of Haddad, Shotar, Umiauf, and Al-Zyoud (2010), adolescents who did not use drugs were well-informed about the characteristics of drugs abuse, including its harmful effects on the body and society, and the majority of the adolescents perceived drugs abuse as a difficult situation. This is the same as the study from Nebhinani, Nebhinani Misra, and Grewal (2013) in that those adolescents with knowledge about drugs addict and their damaging effects had negative attitudes towards substance abusers.

Skenderian, Siegel, Crano, Alvaro, and Lac (2008) studied about expectation change and adolescents' intentions to use cannabis. Their study showed that lack of knowledge in adolescents was predictive of changes in the intention to use marijuana, such as negative outcomes of marijuana use and harmful effects from marijuana lead to intentions to use marijuana in adolescents.

4.3.2 Peer resistance skill

Peer resistance skill is one of the important factors for the prevention of drug abuse. Youths whose group of friends use drugs are more likely to have promising attitudes toward use drugs (Fischoff, 1992; Scheier & Botvin, 1997).

According to Kassowitz's (2015) study of mechanisms of drug abstinence, desistance, and persistence, the results showed that attitudes, the friendship factor and social networks, type of school, a college's acceptance of drugs, parents' views on drugs have an influence on drug abstinence in youths.

4.3.3 Attitude, Negative attitudes toward drugs

Drug use related attitudes may develop from and influence an individual's personal and professional knowledge and behaviors. Attitude is a hypothetical construct that characterizes the human's perspective (negative or positive) toward a specified goal (people, place, thing or experience). Attitudes are generally defined as being composed of three components: 1) cognitive (beliefs), 2) affective (emotions), and 3) behavioral (verbal or non-verbal behavioral tendency).

Haura's (2015) study on the experience of drug use in Muslim adolescents in Satun province showed that adolescents had a negative attitude to drugs comes from four issues: 1) becoming worse, 2) being hail in jail, 3) becoming a thief, and 4) having deteriorating health.

Talanggul and Koonniyom (2015) studied the factors associated with the intention to abstaining from drugs in drug addicts in Aoluk. The results showed that the assumption of self-efficacy and religious beliefs have a relationship to the intention to abstinence of drug addicts. Attitudes towards abstinence and social support have a relationship to the intention to abstinence of drug addicts in Aoluk.

4.3.4 Perceived self-efficacy

Perceived self-efficacy includes individual's beliefs about their competences to produce selected levels of performance that bodybuilding influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think and motivate themselves, and their perceived ability to resist in a high-risk situation (Aspinwall & Taylor, 1997). There is affective evidence that separate self-efficacy to resist or confidence in avoiding substance use in high-risk situations is a stable predictor of better results in substances use and other drugs (Adekeye &

Sheikh, 2009; Minervini, Palandri, Bianchi, Bastiani, & Paffi, 2011; Walitzer & Dearing, 2006; Walton, Blow, Bingham, & Chermack, 2003; Whipple, Jason, & Robinson, 2016).

4.3.5 High self-control

The results of the current study recommend that self-control is a factor that may predict intention against drug abuse. By concentrating on building the skills of self-control, substance abuse avoidance programs might better encourage drug resistance behaviors (Allahverdipour et al., 2006; Desmond, Bruce, Stacer, & Meliissa, 2012). Adolescents with poor self-control are at a high risk of adapting to behaviors that could lead to drug abuse (Gibbes & Giver, 1995; Jackson, Sher, & Wood, 2000; Piquero & Tibbetts, 1996). Absence of self-control in adolescents is a strong predictor of heavy drug use and other drugs use, as well as the commission of individual and property crimes (Braitman, James, Henson, & Carey, 2015; Conner, Stein, & Longshore, 2009; Ford & Hill, 2012; Will, Ainette, Stoolmiller, Gibbons, & Shinar, 2008).

Factors of substance abuse in adolescence as risk and protective factors are categorized into five domains which are; 1) the individual characteristics, 2) peers, 3) the family, 4) the community, and 5) school. And, the factors related to intention to drug avoidance consisting of; 1) knowledge, 2) peer resistance skills, 3) attitude, negative attitudes toward drugs, 4) perceived self-efficacy, and 5) high self-control.

5. Existing instruments related to intention to drug avoidance

From the literature review of the existing tools on intention found many existing instruments that can be used for measuring intention to drugs avoidance. All will be critiqued for both strengths and weakness following (Table 1).

5.1 Drug Avoidance Self-Efficacy Scale (DASES)

The Drug Avoidance Self-Efficacy Scale (DASES) was developed by Martin et al. (1995). The aim of this study was to measure a client's self-efficacy. The DASES is a modified instrument previously constructed from the theory of self-efficacy and it is 16-item self-report form, 16 situations are given that may trigger someone's intention to take drugs, and users are requested to visualize themselves in a specific condition and to score their level of confidence (self-efficacy) to resist substance use in that condition. Each of the measurement items exemplifies a different condition in which a substance abuser may be attracted to use substances. Responses are a 7-point lasting scale ranging from "certainly yes" to "certainly no" which agrees to a degree of "strength" of self-efficacy. This instrument targets multiple drug use in young users (16-30 years). Norozi et al. (2016), tested the DASES in a cultural adaptation and validation study. The result showed that there was no eliminated item in the cultural adaptation process. Results of exploratory factor analysis revealed a two-factor 14-item structure for the DASES. The analysis of the internal consistency of the DASES was very satisfactory (α = .809).

The use of the DASES is a relatively short and informal scale of self-efficacy in drug avoidance, and the validity of the DASES has not been presented.

5.2 Readiness to Change Questionnaire (RTCQ)

The Readiness to Change Questionnaire (RTCQ) was developed by Rollnick et al. (1992).

The RTCQ are responses to 12-items to measure the stage of change, and this has been modified from the theory of the transtheoretical model. It is for use among individuals in medical settings. There is a set of three items that represent pre-contemplation, contemplation, and action stages. The maintenance stage is not included in the RTCQ. RTCQ are items rated on a 5-point Likert-type scale, ranging from disagree to agree. A person's stage of change score ranges from -8 to +8.

The reliability test was among men (174 persons) who were classified as extreme drinkers (α = .73-.85.) Internal consistency of the scales was not shown (Heather, Rollnick, Bell, & Richmond, 1996).

The validity uses of the principal confirmatory analysis (PCA) supported three-factor solutions accounting for a 69% variance. Despite using rotation strategy assumption factors, scale scores were reasonably correlated with each factor. Reanalysis of data using EM recommended that for variable fit (Rollnick et al., 1992). Heather, Rollnick, and Bell (1993) presented predictive indication validity from the same sample. RTCQ predicted the changes in drinking behavior in 8 weeks-6 months, and the strongest relationship was among personalities in the action stage. Participants predicted outcomes as function type intervention. Participants classified as will not

reduce alcohol consumption received more interviewing rather than skills-based counseling (Heather et al., 1996).

The RTCQ theory-based tool when used with a drinker not seeking behavior treatment remains only a degree of drinking behavior stage of change for use in therapeutic centers, and in setting use interventions for alcohol harm problems.

5.3 Texas Christian University (TCU) Motivational Assessment Scales

Texas Christian University (TCU) Motivational Assessment Scales were developed by Simpson and Chatham (1995).

The TCU motivational scales were used in methadone maintenance clinics. TCU has three scales, problem recognition (9 items), desire for help (7 items), treatment readiness (8 items).

Reliability estimates were from 311 samples in substance treatment (Simpson & Joe, 1993). Coefficient alphas for the first scale (problem recognition scale) were .87-.90, demonstrating high internal consistency. The alphas were lower in the factor of desire for help (α = .72-.79), and the treatment readiness scale (α = .70-.74).

The factor analyses supported all three scales (Simpson & Joe, 1993). Predicted intercorrelations were higher correlations in the scales emerged, found between scales representing adjacent stages-problem scale, recognition scale, and desire for help scale (r = .58), desire for help and treatment readiness and there was a lower significant correlation between problem recognition scale and treatment readiness scale (r = .36) (Simpson & Joe, 1993).

TCU motivational scales were evaluated in the setting of intake assessments at substance treatment services in person who opiate-dependent clients.

5.4 Circumstances Motivation Readiness and Suitability Scale (CMRS)

The Circumstances Motivation Readiness and Suitability Scale (CMRS) was developed by De Leon and Jainchill (1986), and modified by De Leon, Melnick, Kressel, and Jainchill (1994).

Description of assessment: CMRS assesses customer perceptions of external factors, such as motivation to membership in therapeutic communities and to forecast treatment retention. The original version included 52 items (De Leon & Jainchill, 1986), representing external factors that influence judgements to enter treatment, motivation (12 items) assesses causes to change, readiness (8 items) to need treatment, suitability (14 items) to relevant management modality (18 items), and the total score combined all the items with higher standards on behalf of greater motivation for treatment.

The total score of reliability in the sample (795) produced alpha coefficients ranging from .85 to .87 (De Leon et al., 1994).

The validity of the CMRS has not been presented.

The CMRS is not a derived tool, it has been constructed in an approach to predict treatment retention in therapeutic communities. Analyses of the tool were limited in the evidence, and the total score determines internal consistency. Subscales are based on the group. The predictive confirmation for the validity of the CMRS total

score is recommended to predict treatment retention. However, the generalizability of the CMRS remains to be demonstrated.

5.5 The Adolescent Substance Abuse Goal Commitment (ASAGC) Questionnaire

The Adolescent Substance Abuse Goal Commitment questionnaire (ASAGC) was developed by Kaminer et al. (2016).

ASAGC consists of 16-items and was developed to measure a person's commitment to person stated drugs treatment goal throughout periods 3 and 9 of a 10 week substance use disorder treatment setting. The ASAGC is for use in adolescents 13-18 years-old (N = 130). EFA was shown on all the items. Concurrent validity with related constructs, self-efficacy, and motivation for change was examined as well.

The ASAGC evaluation of adolescents' commitments to their drugs mishandles. Clinical examiners may take good things about the logical utility of the ASAGC with its capacity to distinguish between commitments to abstinence against the commitment to harm reduction.

The summary of reviewed existing intention tools is described in Table 1. However, the table reflects that most of the existing tools focus on the intention to treatment, motivation to attend the treatments, treatment progress, and readiness to change. Therefore, there is a need to develop an intention to drug avoidance scale in this study.

Table 1: The Tools Related to Intention

Instrument	Utility/Measures	Administration	Strengths	Limitation	Population
1. Drug Avoidance Self-Efficacy Scale (DASES) developed by Martin et al. (1995).	Screening and assessment. To assess self-efficacy.	DASES consists of a 16-item self-report.	- The DASES was developed to measure an individual's self-efficacy (confidence in his/her ability to successfully cope in high-risk situations to not use substances). Evidence supports the reliability and validity of the tool, in spite of the fact that its utilization has been confined to the clients who use this instrument medicated (mature 16-30).	-	Young multiple drug users (16-30 years).
2. Readiness to Change Questionnaire	Screening and assessment. To assess the stage of change	RTCQ consists of a 12-item self-report	Remains as it were a degree of drinking behavior to the stage of change in therapeutic	Data suggest that the highest designation of clients were	Drinkers not seeking treatment.

Table 1: The Tools Related to Intention (continued)

Instrument	Utility/Measures	Administration	Strengths	Limitation	Population
(RTCQ) developed by Rollnick, Heather, Gold, and Hall (1992).	(from the transtheoretical model).		settings, context use interventions alcohol problems.	individuals not taking action in regard to drinking.	
3. The Motivational Assessment Scales (TCU) developed by Simpson and Chatham (1995).	The TCU motivational scales to use in clinics of opioid addicts, consists of three scales: 1) problem recognition (9 items), 2) desire for help (7 items), and 3) treatment readiness (8 items).		TCU tool was tested for factor structure and internal consistency.	Needs evidence support to provide evidence validity of problem recognition and treatment readiness scales.	People who use mathadone.

Table 1: The Tools Related to Intention (continued)

Instrument	Utility/Measures	Administration	Strengths	Limitation	Population
4.Circumstances Motivation Readiness and Suitability Scale (CMRS) developed by De Leon and Jainchill (1986).	CMRS measures individual perceptions of external triggers and is used for internal motivation for treatment in therapeutic health communities. It has been developed to predict treatment retention.	-	CMRS not a derived measure, constructed in an approach to predict treatment retention in therapeutic community.	Analyses of the scale reveal limited evidence reliability and validity. The total score demonstrates internal consistency. Subscales based on groupings by consensus treatment staff (most recovered substance abusers) not supported.	Persons entering therapeutic community.

Table 1: The Tools Related to Intention (continued)

Instrument	Utility/Measures	Administration	Strengths	Limitation	Population
5. The Adolescent Substance Abuse Goal Commitment (ASAGC) developed by Kaminer, Ohannessian, McKay, and Burke (2016).	The scale to measure an adolescent's goal commitment to treatment in a drug abuse center.	ASAGC is a 16-item self-report measure.	Clinical examiners take good things about the logical utility of the ASAGC with its capacity to distinguish between commitments to abstinence against a commitment to harm reduction.	To study the potential difference in a sample or between the level of an adolescent and adult in harm reduction.	Adolescents.

Summary

Drug abuse in adolescents can be caused by many different factors: personal factors, family, peers, and society encouraging adolescents to use drugs. And in part to prevent the use of illicit drugs, the intention to drug avoidance is the main factor that will contribute to adolescents not using drugs.

From the concept analysis, reviews of the literature and individual interviews were integrated to develop the domain for the intention to avoid drug abuse scale as follows; 1) desire to stay away from drugs and to not take drugs consists of; setting individual goals to avoid drugs, motivation to accomplish goals, and self-control to stay away from drugs and to not take drugs, 2) commitment to stay away from drugs and to not take drugs even in difficult situations consists of; commitment to stay away from drugs and to not take drugs although there are high-risk situations, and commitment to stay away from drugs by managing drug triggers, and 3) willingness to stay away from drugs and to not take drugs consists of; readiness to avoid and to not involved with drugs, sense of social responsibility, and adequate knowledge related to drugs.

Factors of substance abuse in adolescence as risk and protective factors are categorized into five domains which are; 1) the individual characteristics, 2) peers, 3) the family, 4) the community, and 5) school and the factors related to intention to drug avoidance consisting of; 1) knowledge, 2) peer resistance skills, 3) negative attitudes toward drugs, 4) perceived self-efficacy, and 5) high self-control.

In regards to existing instruments related to intention to drug avoidance from the literature review, most of the intention measures focused on the intention to

treatment, motivation to attend the treatments, treatment progress, and readiness to change.

CHAPTER 3

METHODOLOGY

This chapter discusses the methodological phases and study protocols. The presentation of this chapter is organized into two phases. The first phase is the development of the Intention to Drug Avoidance Scale (IDAS). The second phase is the psychometric properties testing of the IDAS.

Development and Testing Psychometric Properties of the IDAS

The process of the development and testing of the psychometric properties of the IDAS in this study was modified from DeVellis (2017). The first phase is the development of the IDAS, and this phase is divided into three steps: 1) determination of content domain, 2) item generation, and 3) scale format determination. The second phase is the psychometric properties testing of the IDAS which is divided into four steps: 1) determination of the content validity index (CVI), 2) pre-testing, 3) field-testing, and 4) post-testing.

Phase 1: Development of the Intention to Drug Avoidance Scale (IDAS)

This phase started with the first to the third step. The purposes of this phase were to explore the concept of the intention to avoid drugs, to determine the domain of intention, to generate an item pool, and to design the scale format. The approaches of this phase were divided into three steps: 1) determination of the content domain, 2) item

generation, and 3) scale format determination. Each step is described in detail as follows:

Step 1: Determination of the content domain

The purpose of this step was to explore the concept of intention and specify the domain of the intention to drug avoidance. This was initiated by exploring the concept through reviewing the literature, followed by conducting individual interviews.

1.1 Literature review

This step reviewed the literature that correlated to the concept of intention, and avoidance. The purpose of this step was to explore the concept of intention and to determine the pre-domains of intention. A study correlated performance intention was reviewed and analyzed using the method of concept analysis of Walker and Avant (2005). The literature review covered the empirical knowledge, and research related to intention and to drug avoidance. The databases searched consisted of CINAHL, Pub Med, Blackwell Synergy, and Science Direct with full-text papers. Articles published from January 2000 - January 2017 were used from the search. The following terms were used as keywords for the search; intention, behavior intention, avoid, avoidance, desire, and intention to drug avoidance.

1.2 Concept analysis

Concept analysis based on the guideline of Walker and Avant (2011) was used to analyze the concept of intention to drug avoidance for adolescents. All the searches were for English and Thai documents published from 1990 - 2017. The

inclusion criteria included quantitative and qualitative research designs, English and Thai abstracts and full papers. Various databases were used consisting of CIHAHL, PubMed, ProQuest, and Directory of Open Assess Journal (DOAJ). The literature search was based on the meaning of intention to drug avoidance, desire, commitment, and willingness.

1.3 Individual interviews

The researcher conducted individual interviews with Thai adolescents who lived in Songkhla. The pre-domains of intention were used as guideline questions for more detail. The aim of this step was to clarify the intention to the drug avoidance domain from Thai adolescents and to confirm the intention domains from the literature review.

Participants

The participants purposively selected for this qualitative study are adolescents. Ten adolescents living in high-risk areas, such as those living in slum dwellings, those with peers who used drugs, adolescents with family and education problems, who had not used substances were recruited for interviews about the intention to avoid drugs.

Instrument

The interview guideline consisted of two parts. The first part was the demographic data of the participants. It consisted of; gender, age, religion, education level, and marital status as developed by the researcher. The second part was open-ended questions about the intention to drug avoidance including; 1) the meaning of

intention to drug avoidance, and 2) the components of intention to drug avoidance with probing questions.

Data collection

Individual tape-recorded interviews were performed after each participant agreed to participate in the study either by verbal or written consent. In order to ensure that the participants can express their opinions and perceptions about the intention to drug avoidance, each interview was ended when data saturation was reached. The tape recordings of the interviews were transcribed verbatim.

Data analysis

The qualitative data were analyzed and coded to develop the themes of the intention to drug avoidance. Content analysis methods were used to categorize the textual data from each interview.

1.4 Integration of the result from literature reviews, concept analysis, and individual interviews

The results from the literature reviews, concept analysis, and individual interviews were integrated to develop the components of the intention to drug avoidance for adolescents. The attributes from the literature reviews, concept analysis, and individual interviews were intergraded by the analysis of common and related terms which were then synthesized to develop the components of the intention to drug avoidance.

The results from this step were the specify domains of the IDAS.

Step 2: Item generation

The purpose of this step was to generate an items pool. This step was taken as follows:

Specific domains were used to generate the items of the IDAS. Data collection from the concept analysis, the literature review, and individual interviews were generated into a large pool of items within the content of three domains. The domains of the intention to drug avoidance consisted of; 1) desire to stay away from drugs and to not take drugs, 2) commitment to stay away from drugs and to not take drugs, and 3) willingness to stay away from drugs and to not take drugs. The result of the generation of an item pool was provided for the first version of IDAS.

The result from this step was the IDAS version 1.

Step 3: Scale format determination

The IDAS was designed for measuring intention to drug avoidance. The scale format of the IDAS was rated by a 5-point Likert-like scale because a neutral midpoint would either favor apathetic disinterested subjects or suggest equal attraction to both true and not true of the statement (DeVellis, 2017). The range of the scores was demonstrated in the following:

1 = not at all

2 = slightly true

3 = moderately true

4 = very true

5 = extremely true

The Likert type instrument is classified as a type of subject-centered scale and has been widely used to measure attitude, opinion, personality, and descriptions of people's lives and environment (DeVellis, 2017). The Likert scale was the most appropriate type for this instrument because; 1) it has been widely used for several decades in measuring perception, 2) its techniques have been developed for further analysis, refinement, and validation resulting in good psychometric properties of the scale, 3) it is relatively inexpensive and easy to develop, and 4) it is usually quick and easy for respondents to complete (Jamieson, 2004; Norman, 2010; Wu, 2007). According to the reasons stated above, a five scale choice was appropriate for this instrument.

The result from this step was the IDAS version 1.

Phase 2: Psychometric properties testing of the IDAS

Examining the validity and reliability were the purposes of this phase. This phase was divided into four steps: 1) determination of the content validity index (CVI), 2) pre-testing, 3) field-testing, and 4) post-testing. Each step is described in detail as follows:

Step 1: Determination of the content validity index (CVI)

The method of the content validity was based on an expert's judgment to determine whether the content of the measure is consistent with what it is supported to measure (McDonald, 1999). In order to evaluate the content validity, the instrument, data collection, and data analysis were performed as follows:

Sample: Content validity was assessed by five experts, consisting of one psychiatrist who is a specialist in adolescence, one psychiatrist who is a specialist in substance abuse discipline, one faculty member who is an expert in nursing and an expert in instrument development, one faculty member who is an expert in instrument development and expert in substance abuse users, and one psychologist who has expertise in providing care for adolescents as well as expertise and training in dealing with drug addicts and specialty care in drug and substance abuse users. Having experts review the item pool can confirm or validate the definition of the phenomenon. The five experts were asked to evaluate the congruence/relevance of the item with the concept. The experts also determined the clarity of the items of the IDAS.

Normally, in arranging to measure the degree of understanding between specialists or experts; content validity index (CVI) was employed. CVI is the quantity of items given a rating of quite/very relevant by all raters involved (Waltz et al., 2005). The determining content validity subject matter ability is needed; careful choosing of specialists planning, and utilization of specialists to the ideal number of specialists in particular estimation circumstances. In this way, this test was performed due to its quality to test the substance of the scale.

This step ensured that each item represents its theme. In assessing the relevancy of the items to the content addressed by the objectives the following four-point scale was used: 1 = not relevant, 2 = somewhat relevant, 3 = quite relevant, and 4 = very relevant. At this point, the scores from the relevant scale were computerized for CVI using the formula described by Waltz, Strickland, and Lenz (2005) as following:

$$\text{CVI} = \frac{\text{The proportion of items given a rating of 3 or 4 by most experts}}{\text{Total number of questions}}$$

The value of a CVI of at least 0.8 is acceptable (Waltz et al., 2005).

In this step clarity and conciseness were identified by using “yes” and “no” responses. In addition, the specialists were asked by the researcher to recommend choices for things that were “not relevant”, “a little relevant”, “not clear”, and “not concise” (Appendix B).

Although the method of reviewing all the questionnaires, the specialists gave comments and proposals to reexamine, combine, and adjust even though the scores of 3 or 4 were given to the questions. Hence, the investigator followed the instruction accordingly.

2. Identify the clarity and conciseness of items using “yes” and “no” responses. Moreover, the experts were asked to suggest alternatives for items that were “not relevant”, “a little relevant”, “not clear”, and “not concise” (Appendix B).

Throughout the process of reviewing all the questions, the experts gave comments and recommendations to revise, combine, and modify even though the scores of 3 or 4 were given to the questions. Hence, the investigator followed the instruction accordingly. Thirteen items were eliminated resulting in 27 items on the IDAS.

The result of this step was the IDAS version 2.

Step 2: Pre-testing

After the experts evaluated the content validity index of the IDAS, face validity and social desirability were assessed in this step. In this step, pre-testing was

conducted to revise, retain, and discard any of the items prior to administering them to the subjects for the final evaluation of the instrument.

The reason for the pre-test was to anticipate the conceivable issues in field testing particularly the potential issues from the IDAS suitability, clarity, comprehensiveness of things, and timing. In this manner, the pre-test was another step to refine the scale. Also, another reason for this pre-test was to look for the unwavering quality of the test. On the off chance that the instrument did not meet the standard of unwavering quality, it would not abdicate standard legitimacy which would cause an issue when performing the field test. Any issues arising were clarified within the pre-test stage.

Criteria of samples

The subjects needed to be: 1) studying in general schools, 2) aged 12-18 year-old, and 3) able to communicate in Thai.

Sample size and sampling technique

Thirty subjects were invited to evaluate reliability. The subjects are adolescents. They were selected from a high school in Satoon province (a general school in southern Thailand). Thirty subjects, who agreed to participate, were selected for pre-testing. The samples of pre-testing were not further selected for the field study (Pett, Lackey, & Sullivan, 2003).

Instrument

The pre-testing instrument was the IDAS version 2 which also included 2 forms:

1. The demographic data form.

2. The 27-item IDAS with the front page explaining subjects' rights and instructions (Appendix B.03).

Data collection

Data were collected in a school setting in southern Thailand. After getting written or verbal consent from the subjects, a questionnaire was provided to each of them. The participants completed the questionnaires during their off times. Completed questionnaires were collected by the researcher.

Data analysis and result

Internal consistency was tested by using Cronbach's alpha.

The result from this step was the IDAS version 3.

Social desirability

Social desirability is characterized as the tendency of an individual to extend favorable pictures of themselves amid social interaction (Waltz et al., 2005). Social desirability, however regularly ignored, is an imperative issue in substance and alcohol studies. Social desirability, or "faking good," is a personal distinction variable and reaction predisposition reflecting the have to be "obtain endorsement by reacting in a socially suitable and worthy manner" (Crowne & Marlowe, 1960). Subsequently, it could be a concern of translating the reaction of the IDAS that adolescents allow in social preference. Approximately questions may be sensitive and involve the risk of disclosure of their answers to third parties such as a teacher and their answers may be perceived as socially disagreeable (Tourangeau, Rips, & Rasinski, 2000). A insufficient questions may be delicate and comprise the danger of the revelation of their answers to third parties such as educators and their answers may be seen as socially undesirable.

Consequently, the score result from the IDAS may not be legitimate. Furthermore, according to DeVellis (1991), including a social desirability scale allows the researcher to measure how strongly specific items are influenced by social desirability. The items that relate significantly with the social desirability score obtained should be measured as candidates for exclusion unless there is a good theoretical reason that is indicated.

This research used the social desirability scale-16 (SDS-16). It was developed by Stober (2001). The SDS-16 is administered to subjects along with the IDAS in pre-testing in order to secure an accurate result (Appendix A.04, A.05).

The result of this step was the IDAS version 3.

Step 3: Field-testing

In this step field-testing, the IDAS was tested for construct validity using exploratory factor analysis (EFA) and the known group technique.

The researcher administered the IDAS version 3 and the demographic data form to the subjects.

Samples

The sample in this step was based on the factor analysis requirements, which meant at least 10 cases for each item, and the subjects-to-variables ratio should be no lower than 5 (Bryant & Yarnold, 1995), or at least 300 cases (Norusis, 2005).

Criteria of samples

The subjects needed to be: 1) studying in high schools, 2) aged 12-18 years-old, and 3) able to communicate in Thai.

Population and sampling technique

The subjects for the field-test were Thai students who studied in a general school from 42 education areas in Thailand (2,359 schools).

These six major strata or regions had government numbers and the general education areas are as follows: 1) north region: education area 33-42 (540 schools), 2) north-east region: education area 18-32 (898 schools), 3) east region: education area 16-17 (92 schools), 4) central region: education area 1-8 (426 schools), 5) west region: education area 16-17 (92 schools), and 6) south region: education area 9-15 (495 schools).

Simple random sampling was performed to select the name of education area from each region, and random sampling the name of schools from education area (Table 2).

Finally, 65 students were recruited from each school, 390 students were participants in this step of the study.

Table 2

Randomly selected schools

6 Regions	42 Education area	Province of School
Central region	Education area no. 3	Nakornsawan
East region:	Education area no. 7	Sakaew
South region	Education area no.15	Narathiwat
West region	Education area no.19	Kanchanaburi
North-east region	Education area no.31	Nakhon Ratchasima
North region	Education area no.36	Chiang Rai

Instrument

The IDAS version 3 was used in this step.

Data collection

1. A formal letter from the Faculty of Nursing, Prince of Songkla University, was presented to the directors of each school. The researcher asked for permission to perform the survey of adolescents.

2. Adolescents who meet the inclusion criteria were invited to participate in the study.

3. The subject's information sheet was provided then the informed consent was signed.

4. The questionnaires were completed at the school. Questionnaires were then collected by the researcher.

Data analysis

After being reviewed for its completeness, the data were then encoded and processed for statistical analysis using a computer program. The data analysis was performed following the testing method. The field-testing of internal consistency and item analysis are described as follows:

Demographic data: descriptive statistics, frequencies and percentages, means, standard deviations, and ranges were used to assess the demographic data.

Internal consistency is concerned with the homogeneity of the items within a scale. The relationships among items are logically connected to the relationships of the items to the latent variables, and high inter-item correlations mean the items are all measuring the same things (DeVellis, 2017). Cronbach's alpha coefficient is used to compute the initial internal consistency. Items with high internal

consistency .80 or greater are selected for the final evaluation of the instruments (Pett et al., 2003). All subscales and the total scale are calculated for Cronbach's alpha coefficient. The pre-testing process yields the results with acceptable statistics.

Item analysis, it is one of the statistical procedures permitting an examination of the pattern of response to each item that provides a guideline for revision. In this study, the correlation coefficients of item to item, and item to total scale were analyzed. Items with an item-total correlation less than 0.3 were excluded. The items were thus considered whether to be retained, revised or deleted, in this step.

Exploratory factor analysis (EFA)

Factor analysis is a useful approach in assessing construct validity. It is designed on the conceptual framework, a measure to assess various dimensions or sub-components of a phenomenon of interest, and the wish to empirically justify these dimensions or factors (Soeken, 2005). In this study, factor analysis is used to support the internal structure of the item set of the IDAS.

An exploratory factor analysis defines the factors in purely mathematical terms of best fit, and typically and eventually leads to factors which the researcher interprets (Nunnally & Bernstein, 1994). A factor, which is not directly observable, can be considered a construct or a dimension of the construct of interest. If indication for construct validity exists, the number of factors resulting from the analysis should approximate the number of measurements or subcomponents assessed by the measure, and the items with the highest factor loadings defining each factor should correspond with the items designed to measure each of the dimensions of the measure (Waltz et al., 2005).

As an initial assessment of the construct validity, the factors of the IDAS were analyzed by using principle confirmatory analysis (PCA), varimax rotation. This technique is chosen to begin an assessment as to whether the dimensions of the attributes are representative of the conceptualized concepts identified in the model.

Known group technique

This technique is a common procedure for determining the construct validity of a measuring instrument (Knapp, Kimble, & Danba, 1998). In this procedure, the scores of two groups of subjects who are known to be high and low in the characteristic being measured are compared. If the instrument is sensitive to individual differences in that characteristic, the mean scores of these two groups should differ significantly (Waltz et al., 2005). In order to utilize the known group comparison technique, the sample, instrument, data collection, and data analysis are described in detail as follows:

Sample

Two groups of adolescents were selected. The first group comprised of 30 adolescents who used drugs in Thanyarak Songkhla Hospital. The other group consisted of 30 adolescents from a general school who do not use drugs.

Criteria of samples in school

The subjects needed to be: 1) studying in a general school, 2) aged 12-18 years-old, and 3) able to communicate in Thai.

Criteria of samples in Thanyalak Songkhla Hospital

The subjects needed to be: 1) have a diagnosis in F10-F19 (mental and behavioral disorders due to psychoactive substance use, other psychoactive substance-

related disorders), 2) aged 12-18 years-old, 3) able to communicate in Thai, and 4) have no psychosis symptoms when answering the questionnaire.

Instrument

The IDAS version 4 was used for determining the construct validity using the known group technique.

Data collection

The data collection was performed in the same manner as the field-testing procedure.

Data analysis

Independent t-test, the statistical analysis for determining the construct validity of IDAS by known group technique, was calculated. It was used to statistically test the differences of intention to drug avoidance scores between the adolescents in Thanyarak Songkhla Hospital who use drugs and the adolescents in general school who do not use drugs.

The result of this step was the IDAS version 5.

Step 4: Post-testing

Reliability is a fundamental issue in psychological measurement. (Ghiselli, Campbell, & Zedeck, 1981). If a large number of subjects are measured on the attribute in question and their observed scores plotted, reliability would be conceptualized as the proportion of the variance in the observed score distribution that is due to the difference in the subjects' possession of the attribute being measured (Waltz, Strickland, & Lenz, 2005). In the norm-referenced case, reliability is usually estimated by using: 1) a test-retest, and 2) internal consistency which was discussed in this section.

Test-retest (stability assessment)

Test-retest is fitting for determining the quality of a scale and assessing characteristics known to be relatively stable over the time period under investigation. In this study, the concept of intention to drugs avoidance does not tend to change rapidly. So, this procedure is suitable for testing reliability in this study. The reliability coefficient obtained from the test-retest method provides an estimate of the IDAS. The test-retest was used for stability, test-retest reliability was assessed by administering the same instrument to the same participants on two different times on the assumption there would be no substantial change in the construct under study between the two sampling time points (DeVon et al., 2007). Using the data obtained from two administrations at a two-week interval; the test-retest reliability coefficient between the two-time measures of the IDAS was calculated. The closer the coefficient is to 1.00, the more stable the measuring.

Samples

Thirty adolescents from a general school who do not use drugs were recruited by the purposive sampling method.

Instrument

IDAS version 4 was used in this step.

Data collection

To measure the stability of the instrument over time, all subjects were asked to respond to the same instrument two weeks after the first administration of the instrument. After the first data collection was conducted, the subjects were informed that the second collections would be performed in the following two weeks.

Data analysis

The analysis of responses between the test and the retest was conducted using Pearson correlation coefficient to define whether there were any significant differences between the responses at each time point.

The result of this step was the IDAS version 5 (final version).

Protection of Human Subjects' Rights

The proposal of the study and the consent forms were approved by the Social and Behavioral Sciences Institutional Review Board (IRB) of Prince of Songkla University, and Thanyarak Songkhla Hospital. The research assistants (counsing teachers), contacted the students' guardians and sent a letter explanation the reson, the purpose in this study, the benefits, and the procedure. Furthermore, potential adolescent subjects were verbally informed about: the purpose of the study, what their involvement would entail, anonymity and confidentiality issues, and the right to withdraw at any time without repercussions. Parents who allowed their children to participate were asked to sign a consent form. Adolescents, who agreed to take the study, after their parents' approval was obtained, were asked to sign a consent form (Appendix A02, A. 03).

Summary

The objectives of this study were to develop an instrument to explore the components of the Intention to Drug Avoidance Scale (IDAS) and to determine its

psychometric properties. The instrument was constructed in two phases consisting of the development phase and the psychometric evaluation phase as follows: interview guidelines were developed from pre-specified domains which were synthesized from the literature review. The scale has three specified domains or components. The data from the individual interviews with the adolescents were analyzed by using content analysis. Then pre-specified domains and the themes of the content analysis were used to develop the specified domains. After that, the item pool was generated. The psychometric testing of IDAS was conducted. Content validity was performed using five experts and the CVI was calculated. Construct validity was performed using EFA and known group technique. In addition, reliability was established. The internal consistency and stability were evaluated. The process was directed to find and answer the research questions. The steps of the IDAS development and the psychometric testing used in this study are shown in figure 2.

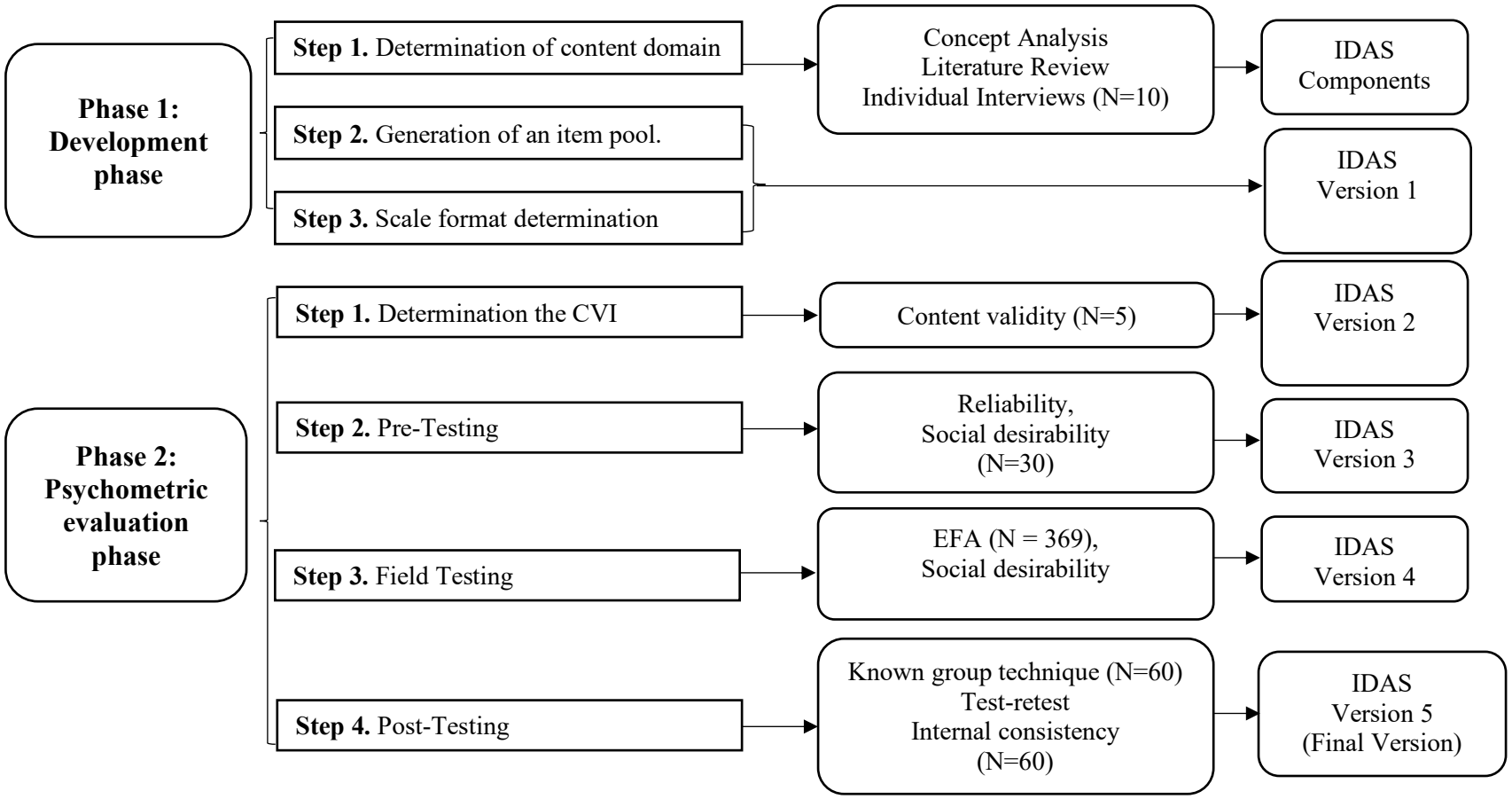

Figure 2 *The Steps in the Development and the Psychometric Testing of the IDAS*

CHAPTER 4

RESULTS AND DISCUSSION

In this chapter, the findings of the two phases of the study are presented and discussed. The first phase is the development of the intention to drug avoidance scale (IDAS). The second phase is the psychometric evaluation of the intention to drug avoidance scale (IDAS).

Results

The result of this study included the phase of the scale development process which was modified from DeVellis (2017). The details are described as follows:

Phase 1: Development of the Intention to Drug Avoidance Scale (IDAS)

The results of this phase are divided into three steps: 1) determination of the content domains, 2) generation of an item pool, and 3) determination of item format.

Step 1: Determination of the content domain

This step was composed of the extensive review of the literature, concept analysis, and individual interviews related to intention to drugs avoidance in adolescents. The results are described as follows:

1.1 Result of literature review

The conceptual structure of this study was based on the concept of intention, and drug avoidance. In this study, the literature review covered empirical knowledge, and the studies related to the intention. The databases were searched to find out about intention, and this consisted of searching; CINAHL, PubMed, Science Direct, and Blackwell Synergy for full texts. Articles published from January 1996-January 2017 were selected in this phase. The terms of intention, behavior intention, avoid, avoidance, and the intention to drug avoidance were used as the keywords for the search. After reviewing 28 articles, the researcher categorized and determined the two components of drug avoidance.

Component 1: Staying away from drugs

Staying away from drugs is an adolescent's desire to not be involved with drugs; to avoid people, places, or things that will have a bad effect on the adolescent as stated in the following; drugs are dangerous to the body and mind, drugs are addictive, take a good look around you at those who are engaged in taking drugs of various kinds, do not allow friends or anyone else to tell you that drugs are okay, and understand that your purpose is too valuable to be wasted upon drugs.

Component 2: Not taking drugs

Not taking drugs is an adolescent's awareness of substances and associated harm (Alhyas et al., 2015), the perceived risk from substance use (Bjarnason & Jonsson, 2005; Lipari, 2014), and self-defense behaviors in regard to drugs (Chagphimai & Sritanasal, 2012). To not take drugs included just say no, set and work toward a goal, and manage stress and risk situations, delay alcohol use, limit negative influences, manage stress, and build strong relationships.

1.2 Result of concept analysis of intention to drug avoidance

From the concept analysis, intention to avoid drugs is a person's desire, commitment, and willingness to be away from drugs or to not take drugs through various strategies.

The attributes of intention to avoid drugs were:

1. Desire to avoid drugs

Desire to avoid drugs includes; setting individual goals to avoid drugs, inspiration and knowing how to make goals be successful and self-control to stay away from drugs and not take drugs.

2. Commitment to avoid drugs even in difficult situations

Commitment to avoid drugs even in difficult situations is an adolescent's to make a firm and deliberate decision refusing drugs before they are offered and self-management in being able to enjoy life and deal with its challenges and problems in healthful ways to stay away from drugs even in difficult situations.

3. Willingness to avoid drugs

Willingness to avoid drugs includes, the attitude of being prepared and having a readiness to stay away from drugs, to not take drugs, and having knowledge of the negative effects of drugs.

1.3 Result of individual interviews

After determining the specified domain of intention to drug avoidance in adolescents, a qualitative approach using an individual interview was carried out to explore the intention to drug avoidance. An interview was conducted with 10 adolescents who lived in a high-risk area consisting of; 3 adolescents who were living

in a slum area, 3 adolescents who had peers using drugs, 2 adolescents who had education problems, and 2 adolescents who had a family member involved in drug use. However, all 10 targeted adolescents have not used drugs.

The results of individual interviews were analyzed in regard to intention to drug avoidance in adolescents and to design the specified domains of the concept**.** There were seven themes found from the qualitative study and these were:

1. Self-awareness and self-motivation to avoid drugs which consisted of

1.1 Setting individual goals to avoid drugs (e.g. “I would set a goal that is strong and hope to become a good person who was a responsible member of the community”).

1.2 Self-control to not use drugs (e.g. “Self-talk it is not good, I would not use any drugs even if my family member has taken them”, “Even though I have money and know the area where drugs are sold, I will definitely not buy them”).

1.3 Inspiration such as how to set successful goals (e.g. “My goal is to be good without interfering with drugs”).

2. Commitment to avoid drugs consisted of the commitment to not use drugs, even though problems or high-risk situations would occur (e.g. “Drugs are bad, I would not interfere with drugs”, “If I face a high-risk situation of substance abuse, I will not hesitate to avoid drugs”, “I would tolerate any pressure that might lead to substance abuse”).

3. Managing internal and external drug triggers (e.g. “Finding a good way to be away from drugs”, “Changing to a good friend who did not interfere with drugs”, “Learning how to care of themselves away from drugs, such as reading”, “No

partying with drugs", "Avoiding places where a friend is taking drugs", "Even if I have stress, I will not solve the problem by using drugs", "I am ready to avoid and not be involved with any drugs by practicing important life-skills that would prevent me from being involved with drug abuse such as refusal skills, and emotional management skills").

4. Perception of drug harm regarding health impacts (e.g. "If we take drugs, it is very hard to quit", "I know because I have read an article about people who use amphetamine or other drugs, these drugs get rid of their happy endorphins if you use enough of it, it is going to turn you into a psychopath and that is really scary"), community harms (e.g. "People who abuse drugs are bad people of society"), domestic drug-related crime (e.g. "Drugs are bad and illegal", "Socially withdrawn when using methamphetamine").

5. Attitude to stay away from drugs and to not take drugs (e.g. "I think you only have to take it once and you're addicted, that's what I've heard", "If we do not interfere with drugs, we will be good in society").

6. Knowledge preparedness (e.g. "I will consult people who can pass on knowledge about drugs, to avoid drug abuse", "I would take care of myself and usually remind myself to be in a drug-free environment").

7. Social responsibility (e.g. "The society is bad if we have addictions that increase the bad people in society").

1.4 Integrations of domains of intention to drug avoidance for adolescents

The domains of intention to drugs avoidance for adolescents, the literature review, concept analysis, and individual interviews were integrated.

The researcher developed a blueprint to analyze and synthesize the domains of intention to drug avoidance for adolescents to guide the scale development.

All three domains of the IDAS, the themes of the literature review, concept analysis, and individual interviews and integrated domains are shown in Table 3.

Table 3

Integration between literature interview, the concept analysis, and Individual Interviews to Develop Components of the IDAS

Domains of the IDAS	Literature Review	Concept Analysis	Individual Interview
1. Desire to stay away from drugs, and to not take drugs consisted of; - Setting individual goals to stay away from drugs and not take drugs. - Motivation to accomplish goals. - Self-control to stay away from drugs and not take drugs.	1. Staying away from drugs. Staying away from drugs is an adolescent's desire to not be involved with drugs; to avoid people, places, or things that will have a bad effect on the adolescent such as; - Limit negative influences. - Drug-free environment.	1. Desire to avoid drugs consists of; setting individual goals to avoid drugs, inspiration and knowing how to set successful goals and to have the self-control to stay away from drugs and not take drugs.	1. Self-awareness and self-motivation to avoid drugs consisted of; - Setting individual goals to avoid drugs. - Self-control to not use drugs. - Inspiration, such as how to set successful goals.

Table 3 (continued)

Domains of the IDAS	Literature Review	Concept Analysis	Individual Interview
2. Commitment to stay away from drugs and to not take drugs consists of; - Commitment to stay away from drugs and not take drugs even in high-risk situations. - Commitment to manage drug triggers.	2. Not taking drugs. Not taking drugs is an adolescent's awareness of substances and associated harm, perceived risk from substance use, and self-defense behaviors in regards to drugs such as, - Just say "No". - Set and work toward a goal. - Manage stress and risk situations.	2. Commitment to avoid drugs even in difficult situations consists of; commitment to stay away from drugs and to not take drugs even though there are high-risk situations, and commitment to manage internal and external drugs triggers.	2. Commitment to avoid drug - Commitment to not use drugs, even though there are problems or high-risk situations.

Table 3 (continued)

Domains of the IDAS	Literature Review	Concept Analysis	Individual Interview
3. Willingness to stay away from drugs and to not take drugs consisted of; - Negative attitudes toward drugs/drug users. - Sense of social responsibility. - Adequate knowledge related to drugs.		3. Willingness to avoid drugs consists of; having the attitude of prepared readiness to stay away from drugs and to not take drugs, and knowledge of the negative effects of drugs.	3. Managing internal and external drugs triggers. 4. Perception of drug harm. 5. Attitude to stay away from drugs and to not take drugs. 6. Knowledge preparedness. 7. Social responsibility.

Domains of IDAS

The researcher developed the domains of the IDAS from the literature review, concept analysis, and individual interviews which consisted of;

1. Desire to stay away from drugs, and to not take drugs consists of; 1) setting individual goals to stay away from drugs and to not take drugs, 2) motivation to accomplish goals, and 3) self-control to stay away from drugs and to not take drugs.

2. Commitment to stay away from drugs and to not take drugs consists of; 1) commitment to stay away from drugs and to not take drugs, and 2) commitment to manage drug triggers.

3. Willingness to stay away from drugs and to not take drugs consisted of; 1) negative attitudes toward drugs/drug users, 2) sense of social responsibility, and 3) adequate knowledge related to drugs.

In conclusion, the three domains of the IDAS were desire to stay away from drugs and to not take drugs, the commitment to stay away from drugs and to not take drugs, and willingness to stay away from drugs and to not take drugs.

Step 2: Item generation

A large item pool was developed for each component of the intention to drug avoidance for adolescents. The total number of items in the initial item pool was 75 items and the numbers of items in each component were as follows:

1. Desire to stay away from drugs and to not take drugs comprised of 16 items.

2. Commitment to stay away from drugs and to not take drugs even in difficult situations comprised of 28 items.

3. Willingness to stay away from drugs and to not take drugs comprised of 31 items.

The conceptualization and definitions of each domain are presented in Table 4.

Table 4

Domains and Definitions of IDAS

Domains	Definitions
1. Desire to stay away from drugs and to not take drugs.	An adolescent's initiation to be away from drugs through setting up a clear goal, looking for a way to achieve one's goal and talking to himself or herself that he/she can succeed in being away from drugs if he/she focuses on the goal and has self-control to stay away from drugs and not take drugs.
2. Commitment to stay away from drugs and to not take drugs.	The devotion of adolescents to make a firm and deliberate decision refusing drugs before they are offered as well as self-management in being able to enjoy life and deal with its challenges and problems in healthful ways to stay away from drugs even in difficult situations and managing internal and external drugs triggers such as difficult situations

Table 4 (continued)

Domains	Definitions
	that involve drug users, certain places and things and high-risk situations.
3. Willingness to stay away from drugs and to not take drugs.	An adolescent's readiness to avoid and not to be involved with drugs by associate with drug users, places and high-risk situations and attempting to stay away from drugs and not taken drugs, sense of social responsibility, and adequate knowledge related to drugs.

Step 3. Scale format determination

The scale format of the IDAS was a 5-point Likert scale. The five categories were chosen from 1 to 5 (1 = not at all true, 2 = slightly true, 3 = moderately true, 4 = very true, and 5 = extremely true).

The result of the first phase was the IDAS Version 1 with 75 items.

Phase 2: Psychometric evaluation phase

This phase had five steps of psychometric evaluation. Content validity was evaluated using content validity index. Construct validity was evaluated by using factor analysis, and known group technique. Reliability was examined using internal consistency evaluation and test-retest method. The result of this stage is presented as follows:

Step 1: Determination of the CVI

The aim of this step was to determine a content validity index (CVI). Seventy-five (item pool) items of the IDAS version 1 were submitted to five experts for review, commentary, and identification of all of the items, ensuring that the items in the scale demonstrated content adequacy (Hinkin, 1995). The suggestions from the experts that were considered were; some items were not related to the concept of intention to drug avoidance, and some items did not fit with the concept of this study, in domain 1 the meaning of desire was not comprehensive enough, and some items reflected the antecedence and consequence of intention.

After editing the items, there were 40 items in total of the IDAS, and the 5 experts again evaluated the 40 items of the IDAS and suggested checking the grammar of each item sentence, some items had to be deleted because they had the same meaning, and questions needed to be modified and added to suit the adolescence context. The CVI of the IDAS (40 items) found that item content validity index (I-CVI) was .64, universal agreement (S-CVI/UA) was .65, and S-CVI/Ave (average) was .60. According to Lynn (1986), it is that I-CVIs should be no lower than .78, and many writers have indicated that an S-CVI of .80 or higher is acceptable (Davis, 1992; Grant & Davis, 1997; Polit & Beck, 2006).

After expert validation, the suggestions were discussed with the advisor and some items were revised, and some items were deleted. Finally, there were 27 items of the IDAS for determination of the CVI. Then the last version was sent to the same 5 experts for revision.

From examination of the content validity index of IDAS, it found that I-CVI was 1, S-CVI/UA (universal agreement) was 1, and S-CVI/Ave (average) was 1.

The result of the first phase was the IDAS version 2 with 27 items.

Step 2: Pre-Testing

The second version of the 27 items of IDAS was used to perform the pre-testing with 30 adolescents. The purpose of this step was to test item analysis and check for internal consistency.

Cronbach's alpha coefficient was computed to examine the internal consistency of IDAS version 2. The alpha coefficient of the entire scale was .86.

In addition, an average inter-items correlation between .31-.70 is desirable for item analysis. Cronbach's alpha coefficient in each component was; component 1: desire to stay away from drugs and to not take drugs (4 items) (α = .73), component 2: commitment to stay away from drugs and to not take drugs (18 items) (α = .79), and component 3: willingness to stay away from drugs and to not take drugs (5 items) (α = .62). The Cronbach's alpha coefficient acceptable values of .7 or .6 (Griethuijsen et al., 2014) (Table 5).

Table 5

Cronbach's Alpha Coefficient in each Component of IDAS version 2 in Pre-Testing

Components	Items	Cronbach's Alpha Coefficient
1 Desire to stay away from drugs and to not take drugs	4	.73
2 Commitment to stay away from drugs and to not take drugs	18	.79
3 Willingness to stay away from drugs and to not take drugs	5	.62
The IDAS total items	27	.86

Pearson product-moment correlation coefficient was used to gauge the relationship between the SDS-16 and the IDAS version 2. The result showed that the IDAS total score and the social desirability score was a non-significant low positive correlation ($r = .18$, $p > .05$) (Table 6).

Table 6

Correlation among the SDS-16 and the 3 Factors of IDAS version 2 (N = 30)

Factor	Social Desirability
1 Desire to stay away from drugs and to not take drugs	.06 ^{NS}
2 Commitment to stay away from drugs and to not take drugs	.01 ^{NS}
3 Willingness to stay away from drugs and to not take drugs	.25 ^{NS}
The IDAS total Score	.18 ^{NS}

^{NS} = $p > .05$

The result of pre-testing supported the continuity of 27 items of the IDAS, and no items were deleted. Therefore, the IDAS version 2 was to be further examined in the field testing.

Step 3. Field testing

The IDAS version 2 was distributed to 390 Thai adolescents from six regions of Thailand: north, north-east, east, west, central, and south (65 adolescents in each region). The return rate of the questionnaires was 100%.

Characteristics of the sample

From a total of 390 questionnaires, 21 respondents were deleted due to having a history of using drugs (methamphetamine, kratom), thus the total of 369 questionnaires was analyzed (Table 7).

Table 7

Demographic Characteristics of Samples (N = 369)

Demographic data	Frequency	Percentage
Gender		
Male	94	25.5
Female	275	74.5
Age		
12 - 15 years	211	57.2
16 - 19 years	158	42.8

Table 7 (continued)

Demographic data	Frequency	Percentage
Religion		
Buddhist	225	61.0
Muslim	144	39.0
Level of education		
Junior high school (Matayom 1-3)	192	51.0
Senior high school (Matayom 4-6)	177	49.0
Persuaded to use drugs		
Yes	60	16.3
No	309	83.7
Smoking		
Yes	42	11.4
No	327	88.6
Friends using drugs		
Yes	291	78.9
No	78	21.1
Living in areas associated with drug use		
Yes	96	26.0
No	91	24.7
Not sure	182	49.3

From table 7, it was found that: 275 (74.5%) adolescents were female, 211 (57.2%) adolescents were 12-15 years old, 225 (61.0%) adolescents were Buddhists,

192 (51.0%) adolescents were studying in junior high school (Matayom 1-3), 309 (83.7%) adolescents had never been persuaded to take drugs, 327 (88.6%) of them were not smoking, 291 (78.9%) of them had friends using drugs, and 182 (49.3%) of them were not sure if they live in areas associated with drug use.

Internal consistency reliability of the IDAS version 2

Internal consistency reliability of the IDAS version 2 was evaluated by Cronbach's alpha coefficient. The alpha of the total scale was .92. The Cronbach's alpha coefficient in each component was; component 1: desire to stay away from drugs and to not take drugs was .81, component 2: commitment to stay away from drugs and to not take drugs was .93, and component 3: willingness to stay away from drugs and to not take drugs was .83 (Table 8).

Table 8

Internal Consistency Reliability of the IDAS Version 2

Components	Items	Cronbach's Alpha Coefficient
1 Desire to stay away from drugs and to not take drugs	4	.81
2 Commitment to stay away from drugs and to not take drugs	18	.93
3 Willingness to stay away from drugs and to not take drugs	5	.83
The IDAS total Score	27	.92

Item analysis

Item analysis correlation was computed on the IDAS version 2. Item-total correlation of all items in IDAS ranged from .41-.84 which indicated that the items were desirable to remain in the scale for further analysis.

Exploratory factor analysis (EFA)

Exploratory factor analysis was performed to explore the factor structure of the 27 items of the IDAS version 2. Three steps of the analysis were performed: 1) testing the assumption of factor analysis, 2) factor extraction using principle components analysis method, and 3) varimax rotation.

1. Testing the assumption of factor analysis

The 27 items of the IDAS were tested for the assumption of exploratory factor analysis (EFA) which consisted of the Kaiser-Meyer-Olkin (KMO), and Bartlett's test of sphericity. The Kaiser-Meyer-Olkin (KMO) reflected an adequacy of the sample at .87. An overall significance of high correlations within a correlation's matrix (x^2 = 6897.041, p < .00) was displayed through the use of Bartlett's test of sphericity.

2. Factor extraction using principal components analysis method

An initial test for factor extraction used an eigenvalue greater than 1, and the scree plot, factor loading, and total variance are explained. In this step, an eigenvalue greater than 1 (1.01-11.41) resulted in 5 factors. The total percentage of the variance explained was 64.49%, and the factor loading ranged from .48-.84.

Furthermore, a scree plot examination (Figure 4) indicated that two to five factors should undergo investigation to select the best factor structures.

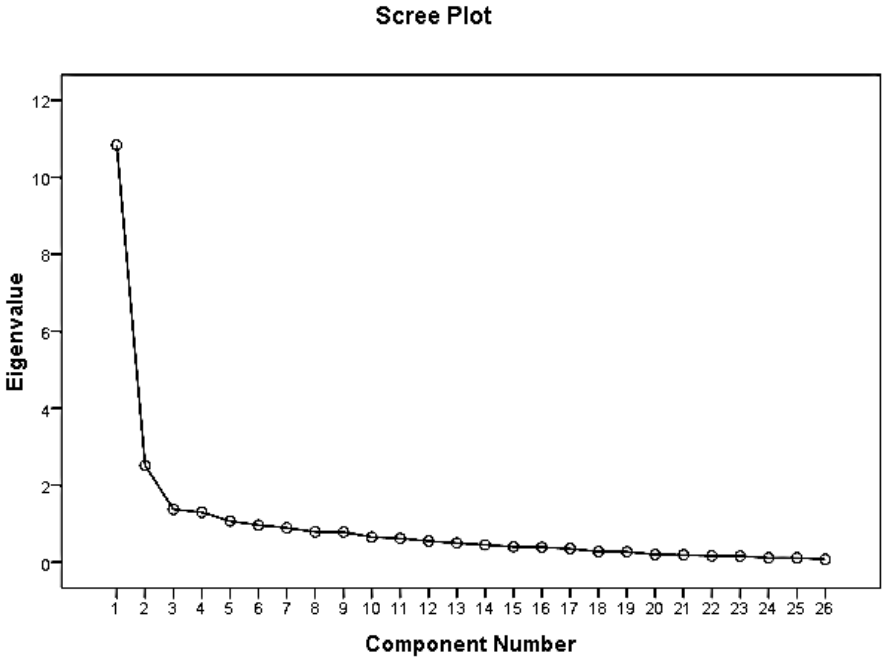

Figure 3 *The Scree Plot of the IDAS version 2 (27 items)*

3. Varimax rotation

The varimax method was used to conduct the rotation of an orthogonal type. After rotation, the number of each factor was: the first factor consisted of 15 items, and the second factor consisted of 7 items, with total variances explained of 54.99%, and with a cutoff point of .30.

Two factors structure were found to conform to the set criteria which were; 1) eigenvalue greater than 1, 2) the scree plot (Figure 3) showed the breaks at 2 and 3 factors were rotated, 3) total percentage of variance was 54.99%, 4) factor loading ranged from .51-.84, 5) theoretical interpretability, 6) parsimony, 7) internal consistency

of the total scale and of each factor. The 5 items were deleted consisted of the factors loading ranging from .35-.40, theoretical interpretation the factor loading cutoff point was increased to .50 in order to reduce side loading. High loading was needed in order to determine the interpretation of the factor is significant. Costello and Osborne (2005) recommended interpreting only factor loading with an absolute value greater than .40. A factor loading ± .50 was generally considered necessary for practical significance. Likewise, Costello and Osborne (2005) suggested that a loading of .50 is enough to be considered strong. So, the researcher decided to use the loading of .50. Finally, the two-factor structure with 22 items accounted for 54.99% of variance with eigenvalues ranging from 2.36-9.74, and factor loading ranging from .54-.86. Streiner (1994) suggested that factors should explain at least 50% of variance. Munro (2001) recommended the percent of variance minimum of each factor ≥ 5%. This study showed that the total percent of variance more than 50%, and percent of variance minimum of each factor ≥ 5%, this is acceptable. The result of this two-factors included: 1) Desire and commitment to avoid drugs, which consisted of 15 items, account of 42.26% of variance and alpha coefficient of the scale was .93, and 2) Readiness to avoid drugs, which consisted of 7 items, account of 10.73% of variance and alpha coefficient of the scale was .86 (Table 9).

Table 9

Eigenvalue, Percentage of Variance, Number of Items, and Alpha Coefficients of the IDAS Version 3 (22 items)

Factor	Number of Items	Eigenvalue	Percent of variance	Alpha coefficients
1 Desire and commitment to avoid drugs	15	9.74	42.26	.93
2 Readiness to avoid drugs	7	2.36	10.73	.86
The IDAS total Score	22		54.99	.94

The details of the scale factors are demonstrated as follows:

Factor 1: Desire and commitment to avoid drugs

Factor 1 consisted of 15 items with factor loadings ranging from .54-.86 and accounted for 42.26% of variance with an eigenvalue of 9.74, and the alpha was .93. Item content examination revealed the impulse, desire or strong wish to avoid drugs, factor 1 was labeled as “Desire and commitment to avoid drugs” (Table 10).

Table 10

The Statement, Factor Loading, Eigenvalue, Percentage of Variance of Factor 1: Desire and Commitment to Avoid Drugs (N = 369)

Item no	Item Statement (n = 15)	Factor loading
1	I would avoid and not be involved with drugs in any case, I would set a goal that is strong and hope to become a good person who takes responsibility in the community.	.65
2	I would avoid and be not involved with drugs in any case, I would do everything without causing harm to myself, other people and the community to achieve the goal of my life.	.72
3	I would avoid triggers by staying away from drug users, not go to a party with drugs, or other events that might lead to drug abuse.	.69
4	To avoid drug abuse, I would take care of myself and usually remind myself to be in a drug-free environment.	.66
5	I would tolerate any pressure that might lead to substance abuse.	.77
6	If I have any problems, I will deal with those issues without using drugs even in drug-related situations.	.86
7	If I face a high-risk situation of drug abuse, I will not hesitate (give up) to avoid drugs.	.78
8	Despite many barriers that make it difficult to avoid drugs, I still intend to overcome those barriers.	.74

Table 10 (continued)

Item no	Item Statement (n = 15)	Factor loading
9	Despite the difficult situations and pressure on me, I would not take any drug.	.64
10	Even if I have stress, I will not solve the problem by using drugs.	.67
11	To change my emotions such as depression, I will apply other ways, such as working out, reading books, instead of using any drugs.	.58
12	I would not stay alone in a situation that provides the opportunity to think about drug abuse.	.54
13	I would immediately say no when friends offer me any drugs.	.55
14	I would not take any drugs, however, my location is associated with drug abuse, specifically drug dealers and drug users.	.57
15	Even though I have money and know the area where drugs are sold, I will not definitely buy any.	.58
	Eigenvalue	9.74
	% of variance	42.26

Factor 2: Readiness to avoid drugs

Factor 2 consisted of 7 items with factor loadings ranging from .55-.82 and accounted for 10.73 % of variance with an eigenvalue of 2.36, and the alpha was .86. Item content examination revealed the readiness to avoid drugs, thus factor 2 was labeled as "Readiness to avoid drugs" (Table 11).

Table 11

The Statement, Factor Loading, Eigenvalue, Percentage of Variance of Factor 2: Readiness to Avoid Drugs (N = 369)

Item no	Item Statement (n = 7)	Factor loading
1	I would avoid using drugs by trying to find alternative activities to inhibit drug abuse.	.55
2	I would avoid participating or spending time with persons who use a drug.	.66
3	I am ready to avoid and not be involved with any drug by gaining knowledge of the pros and cons of drug abuse and the ways to avoid it.	.67
4	I am ready to avoid and not be involved with any drug by talking to educated people who are experts in drug abuse.	.82
5	I am ready to avoid and not be involved with any drugs by practicing an important life-skill that would prevent me from abusing drugs such as refusal skills, and emotional management skills.	.76

Table 11 (continued)

Item no	Item Statement (n = 7)	Factor loading
6	I am ready to do any activities that will help me to not be involved with drugs.	.73
7	I ready to avoid drugs by finding occasions to participate with people who have experienced successful ways to avoid using drugs.	.70
	Eigenvalue	2.36
	% of variance	10.73

Reliability of IDAS version 3

The reliability was calculated for alpha coefficients on subscales and total scores. The finding revealed that the overall internal reliability was good ($\alpha = .94$) and the alpha coefficient of each factor ranged from .86, and .93 (Table 9).

The relationship between the SDS-16 and the IDAS version 3

The relationship between the SDS-16 and the IDAS version 3 was evaluated through the use of Person product-moment correlation coefficient. The result showed that the IDAS total score and the social desirability score was non significantly correlation was -.13 ($p > .05$), with each factor as; factor 1: desire and commitment to avoid drugs was -.14 ($p > .05$), and factor 2: readiness to avoid drugs was -.10 ($p > .05$) (Table 12).

Table 12

Correlation among the SDS-16 and the 2 Factors of IDAS version 3 (N = 369)

Factor	Social Desirability
1 Desire and commitment to avoid drugs	-.14 ^{NS}
2 Readiness to avoid drugs	-.10 ^{NS}
The IDAS total Score	-.13 ^{NS}

^{NS} = *non-significant*

Step 4. Post-testing

This step of post-testing was to examine the validity and reliability of the newly developed Intention to Drugs Avoidance Scale (IDAS final version). The post-testing used the known group technique and test-retest evaluations are as follows.

Tests of normality

The normality test was supplementary to the graphical assessment of normality. The main test for the assessment of normality was Kolmogorov-Smirnov, and Shapiro-Wilk. In this study, Kolmogorov-Smirnov = .164 ($p < .05$), and Shapiro-Wilk = . 879 ($p < .05$), Skewness -.832 , and Kurtosis -.323. The result of the test of normality founded that the data was non-normal distribution and used statistics nonparametric method. Nonparametric method was more suitable for testing the hypothesis in social science research, nonparametric test was the distribution-free test, did not require the normality assumption, the data were not normally distributed (Ghasemi & Zahedials, 2012).

Results from known group technique

This technique was conducted to examine the construct validity of the 22 items of IDAS version 3 (final version). A sample of 60 adolescents (30 for each group) was used for the construct validity evaluation of the IDAS version 3 using the known group technique. The first group was 30 adolescents in Tanyaluk Songkhla Hospital, who used drugs, and the second group was 30 students in high school in Hatyai Vittayalai 2 School, who did not use drugs.

The comparison of the Mann-Whitney U Test between the Intention to Drugs Avoidance Scale of the two groups indicated that the first groups (use drug) and second groups (not use), the total score of the intention to drug avoidance scale of the two groups indicated that the first group had a lower score of intention to drug avoidance $U = 14.50$, $z = -6.45$, ($p < .05$). The comparison for each factor, it was also shown that the first group (use drug) had lower score of each factor than that of the second group (not use drug) ($U = 13.00$, $z = -6.48$; $U = 39.00$, $z = -6.18$) ($p < .05$) (Table 13).

The result indicated that the newly developed IDAS could differentiate the adolescents who had used drugs, in regards to the intention to drug avoidance, with low intention to drug avoidance. These findings supported the constructed validity of the IDAS.

Table 13

Mean, SD., and Z-Value of the IDAS of Known Group Score of IDAS version 3 (N =60)

Factor	Group (30+30)	Mann-Whitney U	Mean Rank	*z*
1 Desire and commitment to avoid drugs	Use		15.93	
	Not use	13.00	45.07	-6.48*
2 Readiness to avoid drugs	Use		16.80	
	Not use	39.00	44.20	-6.18*
The IDAS total Score	Use		15.98	
	Not use	14.50	45.02	-6.45*

* $p < .05$

Result from test-retest

Stability reliability was performed by using the test-retest method. The 22 items of IDAS version 3 was distributed to 30 adolescents at high school who had not used drugs and the same proceedings were repeated with the same group with a two week-interval. The score of each factor and the total score of the IDAS of both tests were appraised for correlation by applying the Spearman product-moment correlation coefficient. The result of the stability of the first and second IDAS test using test-retest of the total score was .77 ($p < .01$), and for the score of each factor; factor 1: desire and commitment to avoid drugs was .81 ($p < .01$), and factor 2: readiness to avoid drugs was .72 ($p < .01$) (Table 14).

Table 14

Stability of the First and Second IDAS Test Using Test-Retest (N = 30)

Factor	*r*
1 Desire and commitment to avoid drugs	.81 **
2 Readiness to avoid drugs	.72 **
The IDAS total Score	.77 **

** $p < .01$

Discussion

This study aimed to develop the Intention to Drug Avoidance Scale (IDAS), and evaluate the psychometric property. The discussion of the findings is presented in two parts: 1) the components of the IDAS, and 2) psychometric properties of the IDAS.

1. The components of the IDAS

The IDAS final version consisted of 22 items with 2 factors: 1) desire and commitment to avoid drugs, and 2) readiness to avoid drugs. The total percentage variance was explained as 54.99% of variance. According to Schere, Wiebe, Luther, and Adam (1988), a variance explained between 40-60% is considered sufficient in social science. Hair, Black, Babin, and Anderson (2010) indicate 60% of the total variance as satisfactory. However, some indicated that 50% of the variance is acceptable (Beavers, Lounsbury, Richards, Huck, & Skolits, 2013). In this study,

therefore, the total variance explained was sufficient for a newly developed scale. The eigenvalue ranged from 2.36-9.74 and since they were all greater than 1.0, considered practically significant (Hair, Black, Babin, & Anderson, 2010; Tabachnick & Fidell, 2013). Factor loadings of all items in the range of .54-.86 are considered practically significant and there was a strong loading on each factor (Hair, Black, Babin, & Anderson, 2010). In addition, the new scale of the IDAS with 22 items had overall internal consistency reliability at .94 and the alpha coefficient of each factor ranged from .86-.93 which indicate high reliability. According to Nunnally and Bernstein (1994), an alpha coefficient of .7 was minimally acceptable for a newly developed instrument. Therefore, the IDAS is appropriate to assess the intention to drug avoidance of Thai adolescents.

Factor 1: Desire and commitment to avoid drugs

The first factor was labeled "Desire and commitment to avoid drugs". This factor consisted of 15 items with factor loadings ranging from .54-.86 and accounted for 42.26 % of variance with an eigenvalue of 9.74. This factor showed high loading scores as DeVellis (2017) and Waltz, Strickland, and Lenz (2017) suggested that factor loadings from .30-.40 reach the minimal level for practically significant. The percentage of variance of 42.26% in each factor is acceptable according to Dixon (2005) who suggested that at least 5% of variance is acceptable. An eigenvalue in this factor was considered acceptable as it is more than 1 (Hair, Black, Babin, & Anderson, 2010; Tabachnick & Fidell, 2013). The Cronbach's alpha coefficient of this factor was .94, reflecting a high quality of the scale (DeVellis, 2017).

This factor explained an adolescent's initial in his/her life goal which was aspects of setting individual goals to stay away from drugs and to not take drugs, having motivation to accomplish goals, and self-control to stay away from drugs and not take drugs. self-management in being able to enjoy life and deal with its challenges and problems in healthful ways to stay away from drugs even in difficult situations and managing internal and external drugs triggers such as difficult situations that involve drug users, certain places and things and high-risk situations.

Desire is a strong feeling or hope for a person, outcome, or object. When a person desires something, they want to take actions to obtain their goal (Lin & Forrest, 2011). Having clear goals will help a person define the activities he/she needs to follow. In this section, adolescents are planning to avoid drugs. For example, they desire to avoid drugs and have not interfered with drugs in any situation, and they have accomplished this by setting goals to be a good person with a good sense of social responsibility. And, the adolescents tried to stay away from drugs through setting up a clear goal, and they looked for a way to achieve their goal and focused on the goal to stay away from drugs and to not take drugs as outlined below:

"I want to avoid and stay away from drugs in any case. I will set my life goals clearly and properly in order to be a good person who has a social responsibility".

"I want to avoid and stay away from drugs in any case. I will do everything that is of no harm to me, other persons, and society in order to achieve the goals in my life".

"I want to avoid drugs by trying to take care of myself, to remind myself to be in a drug-free environment".

"Despite facing many barriers that are difficult in avoiding drugs, I will still intend to overcome those barriers".

"If I have an emotional desire to use drugs, I can handle that emotion in a non-drug way".

"I will not take drugs, although I may be in the situation related to drug using, such as being with drug traffickers, and drug addicts".

Factors that result in a successful commitment to drug avoidance included perceived self-efficacy, thinking and motivating themselves, and their perceived aptitude to fight in a high-risk situation (Aspinwall, & Taylor, 1997). There is strong indication that separate self-efficacy to fight or self-confidence in escaping drugs use in high-risk situations is a stable predictor of better results in alcohol and substances use (Adekeye & Sheikh, 2009; Minervini, Palandri, Bianchi, Bastiani, & Paffi, 2011; Walitzer & Dearing, 2006; Walton, Blow, Bingham, & Chermack, 2003; Whipple, Jason, & Robinson, 2016). The results of the current study propose that self-control is a factor that could predict intention against drug abuse. By focusing on building self-control skills, drug abuse prevention programs might better promote drug resistance behaviors (Allahverdipour et al., 2006; Allahverdipour et al., 2007; Desmond, Bruce, Stacer, & Meliissa, 2012). Adolescents with poor self-control are at a high risk of adapting to behaviors that could lead to drug abuse (Gibbes & Giver, 1995; Jackson, Sher, & Wood, 2000; Piquero & Tibbetts, 1996). Absence of self-control among adolescences is a strong predictor of tobacco use, other drugs use, as well as the commission of individual and property crimes (Braitman, James, Henson, & Carey, 2015; Conner, Stein, & Longshore, 2009; Ford & Hill, 2012; Will, Ainette, Stoolmiller, Gibbons, & Shinar, 2008). For example, in this study adolescents showed their

commitment to avoiding drugs, as well as preparing themselves, and practicing skills in avoiding drugs as outlined below.

"I will not be alone because it can make me think about using drugs".

"Even I feel uncomfortable or have any problems; I will not use drugs to solve the problems".

"Even though I have money and know the area where drugs are sold, I will not definitely buy them".

"I would not use any drugs even if my family member has taken any".

"If I attend a drug party, I would absolutely avoid using drugs".

"I would immediately say no when friends offer me any substances".

Factor 2: Readiness to avoid drugs

The second factor consisted of 7 items with factor loadings ranging from .55-.82 and accounted for 10.73 % of variance with an eigenvalue of 2.36. This factor showed high loading scores as DeVellis (2017), and Waltz, Strickland, and Lenz (2017) suggested that factor loading from .30-.40 reach the minimal level for practically significant. The percentage of variance of 10.73% in each factor is acceptable according to Dixon, Ellison, and Gotelli (2005) who suggested that at least 5% of variance is acceptable. An eigenvalue in this factor of 2.39 was considered acceptable as it is more than 1 (Hair, Black, Babin, & Anderson, 2010; Tabachnick & Fidell, 2013). The

Cronbach's alpha coefficient of this factor was .86, reflecting a high quality of the scale (DeVellis, 2017).

Readiness is the willingness to do something or the state of being fully prepared for something. This factor explained the readiness to drug avoidance which is an adolescent's readiness to avoid and not to be involved with drugs by, associating with drug users, places and high risk situations and attempting to stay away from drugs and to not take drugs, sense of social responsibility, and having adequate knowledge related to drugs.

Regarding the study of Haddad, Shotar, Umiauf, and Al-Zyoud (2010), adolescents' nonuse of drugs were about being informed about aspects of drugs abuse, including its damaging effects on the body, mind, and society and the majority of the schoolchildren perceived drugs abuse as a problem. This is the same as the study from Nebhinani, Nebhinani, Misra, and Grewal (2012), in that knowledge about addictive substances and their harmful effects resulted in adolescents having a negative attitude towards substance abusers. According to Jessica, Skenderian, Siegel, Crano, Alvaro, and Lac (2008), they studied about expectation change and adolescents' intentions to use marijuana, and the level of adolescents' knowledge was predictive of change intentions to use cannabis, such as knowing about the negative outcomes of marijuana use and the harm from marijuana use had led to intentions to use marijuana in adolescents. For example, in this study, they showed that adolescents with information about drugs addict and their damaging effects had negative attitudes towards substance abusers as outlined below:

"I would avoid using drugs by trying to find alternative activities to inhibit drug abuse.

"I would avoid participating or spending time with persons who use a drug".

"I am ready to avoid and not be involved with any drugs by gaining knowledge of the pros and cons of substance abuse and the way to avoid it".

"I am ready to avoid and not be involved with any drugs by talking to educated people who are experts in drug abuse".

"I am ready to avoid and not be involved with any drugs by practicing important life-skills that would prevent me from drug abuse such as refusal skills, and emotional management skills".

"I am ready to do any activity that will help me to not interfere with drugs".

"I ready to avoid drugs by finding occasions to participate with people who have experienced successful ways to avoid using drugs".

2. The Psychometric Properties of IDAS

The discussion section is made up of three parts: 1) content validity of IDAS, 2) construct validity of the IDAS, and 3) reliability of the IDAS.

2.1 Content validity of the IDAS

The content validity indices of the 27 items of IDAS (I-CVI) was 1, and the content validity index for the whole scale of intention to drug avoidance (S-CVI) revealed that S-CVI/UA (universal agreement) was 1 and S-CVI/AV (average) was 1 when the accepted level of content validity was computed to be .80 (Lynn, 1986; Pilit

& Beck, 2006; Pilit, Beck, & Owen, 2007). Content validity by experts was supported and sufficient to test in the next step. Therefore, the CVIs supported that the IDAS had satisfactory evidence as a newly developed scale for measuring intention to drug avoidance in Thai adolescents.

2.2 Construct validity of the IDAS

The construct validity of the IDAS was investigated using exploratory factor analysis (EFA) resulting in an outcome of satisfactory. It contained two factors comprising of 22 items which suited this present study as each factor was acceptable with moderate and high factor loadings. According to Waltz et al. (2010), to reduce some items and to make parsimony of the factor, the factors loadings can be higher than .30. High factor loadings also represent the factors that are more suitable. In addition, the majority of the factors accounted for at least 5% of variance and all had eigenvalues greater than 1. Moreover, the construct of intention to drug avoidance for Thai adolescents as it accounted for 54.99% of total variance which demonstrated it was suitable to assess intention to drug avoidance for Thai adolescents.

In addition, the IDAS was tested for the construct validity by known group technique. Thirty respondents were recruited for each of the two groups. The purpose was to compare the mean difference between the intention to drug avoidance of the two groups which indicated that the first group (use drug) had a lower score of desire to avoid drugs, and readiness to avoid drugs than the second group (not use) (z = -6.48, and - 6.18), ($p < .05$), and the total score of the intention to drug avoidance scale of the two groups indicated that the first group had a lower score of intention to drug avoidance (z = - 6.45) with a statistically significant difference from group 2 at the

0.00 ($p < .05$). As stated by Rubio, Rubin, and Brennan (2003), a high degree of construct validity is increased when the scores of dissimilar groups are very different on items that have high relevance to one group but not to the other. This study showed that the difference (-6.45) was obviously large, perfectly showing the difference between the two groups. The result supported the construct validity of the IDAS.

2.3 The reliability of the IDAS

In regards to the reliability, there were two types of test to test reliability which were internal consistency and stability reliability of the IDAS.

The internal consistency used the Cronbach's alpha coefficient which was performed on two instances, and these were pre-test and field test. The results of the reliability showed that the Cronbach's alpha coefficient total of the pre-testing (the IDAS version 2) was .86, and field-test (the IDAS version 2) was .94. The total result of the reliability of the IDAS was also higher than .7 which is a highly acceptable internal consistency for a newly constructed measurement. According to DeVellis (2017), the measurement scale that achieves an alpha coefficient between 0.80-0.90 is very good. The overall internal consistency of the IDAS with 22 items as the final version showed the alpha coefficient of each factor ranged from .86-.93.

Stability testing of the IDAS using the test-retest method between the two groups with a two-week interval was statistically correlated ($r = .77$, $p < .01$). Hence, this finding of the stability of the IDAS was confirmed evidence of stability for a newly developed measure.

Summary

In regards to the development and psychometric evaluation of the IDAS using EFA with varimax rotation, the result revealed 2 factors consisting of; 1) desire and commitment to avoid drugs, and 2) readiness to avoid drugs. The total variance of the IDAS was acceptable and the factor loading of the items was strong loading on each factor. Internal consistency reliability indicated high reliability. Known group method was used to support the construct validity. The stability reliability was performed by using the test-retest method that indicated support for the stability of this newly developed tool (Figure 4).

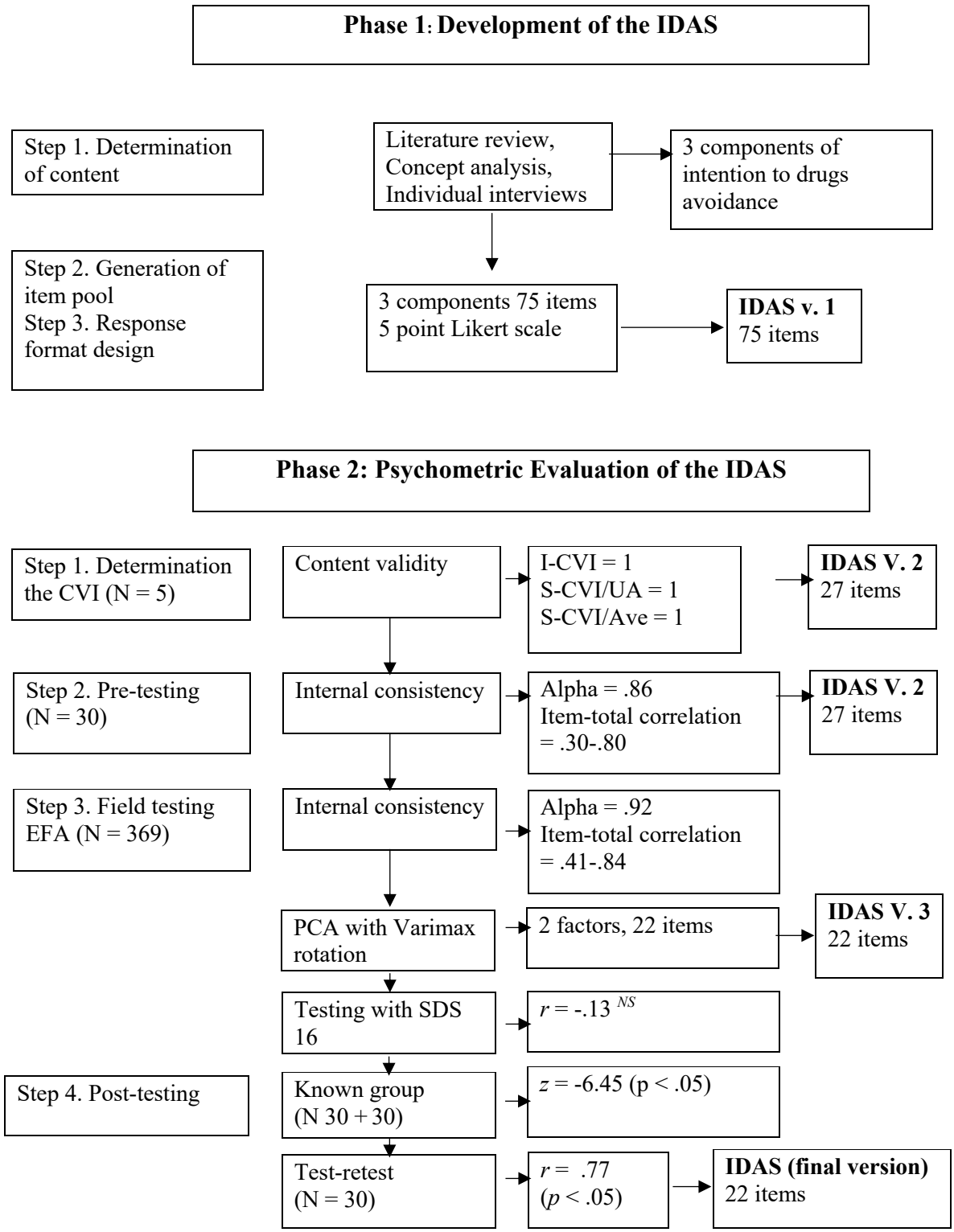

Figure 4: *Steps of development and psychometric evaluation of the IDAS and the results*

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the conclusion, implications and recommendations of the study to nursing education, practice and administration, and future research.

Conclusions

From this study, the purpose was to develop a valid and reliable scale to measure intention to drug avoidance for Thai adolescents.

This study consisted of 2 phases: 1) development of the Intention to Drug Avoidance Scale (IDAS), and 2) psychometric properties of the IDAS.

Development Intention to Drug Avoidance Scale (IDAS)

The construction of the Intention to Drug Avoidance Scale (IDAS) was developed through the process of a literature review, concept analysis, and individual interviews. First, the literature review exposed two pre-specified domains which were: to stay away from drugs, and to not take drugs. Second, the concept analysis exposed three pre-specified domains which were: self-motivation to avoid drugs, commitment to avoid drugs even in difficult situations, and the willingness to avoid drugs. Third, the individual interviews exposed seven pre-specified domains which were: self-awareness and self-motivation to avoid drugs, commitment to avoid drugs, managing internal and external drug triggers, perception of drug harm, attitude to stay away from drugs and

not take drugs, knowledge preparedness, and social responsibility. After the process of the literature review, concept analysis, and individual interviews of the instrument data were performed, three specified domains of the IDAS were synthesized and applied to represent the conceptual framework of the IDAS. These domains were the desire to stay away from drugs and to not take drugs, the commitment to stay away from drugs and to not take drugs, and the willingness to stay away from drugs and to not take drugs. Finally, 27 items of the IDAS in version 1 were generated. The resulting items were: 4 items of desire to stay away from drugs and to not take drugs, 18 items of commitment to stay away from drugs and to not take drugs, and 5 items of willingness to stay away from drugs and to not take drugs.

The Psychometric Properties of the IDAS

1. Content validity

The content validity of the items in this study was established through the reviewing process of five experts with respect to the conceptual definition of IDAS. In regards to the content validity of the newly generated items, it was found that the IDAS had high content validity index: ICVI = 1, S-CVI/UA = 1, and S-CVI/Ave = 1. The finding confirmed that the 27 new items adequately represented the measurement of the IDAS.

2. Construct validity of the IDAS

The construct validity of the IDAS was investigated using exploratory factor analysis (EFA), and known group technique.

2.1 Exploratory factor analysis (EFA)

The IDAS was tested for the construct validity by resulting in an outcome of satisfactory. It contained two factors comprising of 22 items which suited this present study as each factor was acceptable with moderate and high factor loading. In addition, the majority of the factors accounted for at least 5% of variance and all had eigenvalues greater than 1. Moreover, the construct of the intention to drug avoidance for Thai adolescents accounted for 54.99% of the total variance which demonstrated it was suitable to assess intention to drug avoidance in Thai adolescents.

2.2 Known group technique

In addition, the IDAS was tested for the construct validity by known group technique. The results of the comparison of the mean difference between the Intention to Drugs Avoidance Scale of the two groups indicated that the first groups (use drug) and second groups (not use), the total score of the intention to drug avoidance scale of the two groups indicated that the first group had a lower score of intention to drug avoidance $z = -6.45$, ($p < .05$).

3. The reliability

The reliability and internal consistency of the IDAS were tested using the Cronbach's alpha coefficient which was performed on two instances consisting of;

The pre-testing (the IDAS version 2), the alpha coefficient of the entire scale was .86, and for each component this was; component 1: desire to stay away from drugs and to not take drugs α = .73, component 2: commitment to stay away from drugs and to not take drugs α = .79, and component 3: willingness to stay away from drugs and to not take drugs α = .72.

In regards to the field-testing (the IDAS version 3), the alpha coefficient of the overall internal reliability was good (α = .94), and the alpha coefficient of each factor ranged from .86-.93.

Stability testing of the IDAS using the test-retest method between the two groups with a two-week interval statistically correlated (r = .77, p < .01).

The final version of the Intention to Drugs Avoidance Scale (IDAS)

The final version of the Intention to Drug Avoidance Scale (IDAS) composed of 22 items with two factors and the total variance explained by 54.99%. Factor loadings of the IDAS ranged from .54-.86. The results of the two factors consist of:

1. Factor I: Desire and commitment to avoid drug (15 items) with factor loading ranging from .54-.86 and accounted for 42.26% of variance with an eigenvalue of 9.74.

2. Factor II: Readiness to avoid drug (7 items) with factor loading ranging from .55-.82 and accounted for 10.73 % of variance with an eigenvalue of 2.36.

Implications and Recommendations

The result of this study provides important implication for understanding major construct of the intention to drugs avoidance of Thai adolescents,

The IDAS is a valid and reliable measure in evaluating the intention to drug avoidance of adolescents in Thailand. This tool assesses the intention to drug avoidance of adolescents through two factors: 1) desire and commitment to avoid drugs, and 2) readiness to avoid drugs. Moreover, the findings of this study will certainly benefit adolescents' discipline in education, practice, and administration. Nursing staff can use the IDAS as a guideline for evaluating adolescents' intentions to avoid drugs. The individual results from the IDAS, in regards to an adolescent's intention to avoid drugs, nursing staff can use the information from the assessment and evaluated the intention and used it for planning, promoting the desire, and readiness to avoid drug abuse in each adolescent.

Strengths of the study

1. The IDAS is the first instrument developed through the steps of a standard scale to measure intention to avoid drugs in adolescents.

2. The IDAS has been developed by a comprehensive literature review of Thailand and other countries, concept analysis, and individual interviews on the intention to drug avoidance.

3. The IDAS showed high validity and reliability that support the quality of the IDAS.

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Appendix A

Documents for Requesting Collect Data

A.01 Intention to Drugs Avoidance Scales (IDAS) (27 items) (Thai Version)

A.02 Informed Consent Form

A.03 Informed Consent Form (Thai Version)

A.04 The Social Desirability Scale-16 (SDS-16)

A.05 The Social Desirability Scale-16 (SDS-16) (Thai Version)

Appendix A 01

Intention to Drugs Avoidance Scales (IDAS) (27 items) (Thai Version)

ตอน 1 ข้อมูลทั่วไป

โปรดทำเครื่องหมาย ✓ลงในช่อง ☐ ที่ตรงตามข้อมูลความเป็นจริงของท่าน

1. อายุ ____ ปี

2. เพศ ☐ 1. ชาย ☐ 2. หญิง

3. ศาสนา ☐ 1. พุทธ ☐ 2. อิสลาม

☐ 3. คริสต์ ☐ 4. อื่นๆ (โปรดระบุ) _____

4. การศึกษา

☐ 1. มัธยมศึกษาตอนต้น

☐ ม. 1 ☐ ม. 2 ☐ ม. 3

☐ 2. มัธยมศึกษาตอนปลาย

☐ ม. 4 ☐ ม. 5 ☐ ม. 6

5. ท่านเคยถูกชักชวนให้ลองยาเสพติดหรือไม่

☐ เคย ☐ ไม่เคย

6.. ท่านเคยใช้ยาเสพติดหรือไม่

☐ ไม่เคย

☐ เคย ถ้าเคยใช้โปรดระบุ

☐ กัญชา ☐ ยาบ้า ☐ ยาไอซ์

☐ ผงขาว ☐ กระท่อม/ 4x100 ☐ กาว

☐ อื่นๆ .....

7. ท่านมีเพื่อนที่เคยใช้ยาเสพติดหรือไม่

☐ ไม่มี

☐ มี ถ้ามีโปรดระบุ

☐ กัญชา ☐ ยาบ้า ☐ ยาไอซ์

☐ ผงขาว ☐ กระท่อม/ 4x100 ☐ กาว

☐ อื่นๆ .....

8. ชุมชนที่ท่านพักอาศัยมีการระบาดของยาเสพติดหรือไม่

☐ มี ☐ ไม่มี ☐ ไม่แน่ใจ

ตอน **2** โปรดระบุความคิดของท่านที่ตรงกับความเป็นจริงของท่านมากที่สุด

1 = ไม่จริงเลย

2 = จริงเล็กน้อย

3 = จริงปานกลาง

4 = จริงมาก

5 = จริงมากที่สุด

ข้อคำถาม	**ความคิดเห็นของท่าน**				
	1	2	3	4	5
1. ฉันต้องการจะหลีกเลี่ยงและไม่ยุ่งเกี่ยวกับยาเสพติดไม่ว่ากรณีใดๆก็ตามโดยฉันจะกำหนดเป้าหมายชีวิตที่ชัดเจนเป็นไปได้เพื่อที่จะเป็นคนดีมีความรับผิดชอบต่อสังคม					
2. ฉันต้องการจะหลีกเลี่ยงและไม่ยุ่งเกี่ยวกับยาเสพติดไม่ว่ากรณีใดๆก็ตามโดยฉันจะทำ ทุกวิถีทางเพื่อให้บรรลุเป้าหมายชีวิตที่ฉันวางไว้ด้วยวิธีการที่ไม่ทำให้ตัวเองและผู้อื่นและสังคมเดือดร้อน					
3. ฉันต้องการที่จะหลีกเลี่ยงและไม่ยุ่งเกี่ยวกับยาเสพติดโดยพยายามจะอยู่หรือหลีกเลี่ยงเหตุการณ์หรือเพื่อนที่จะชักนำไปสู่การเสพยาเสพติด					
4. ฉันต้องการหลีกเลี่ยงยาเสพติดโดยพยายามดูแลตนเองและบอกกับตัวเองเสมอว่าจะอยู่ในสิ่งแวดล้อมที่ปลอดจากยาเสพติด					
5. ฉันจะอดทนต่อแรงกดดันต่างๆที่จะนำไปสู่การเสพยาเสพติด					

ข้อคำถาม	ความคิดเห็นของท่าน				
	1	2	3	4	5
6. เมื่อมีปัญหาใดๆเกิดขึ้นฉันจะจัดการกับปัญหาเหล่านั้นโดยไม่ใช้ยาเสพติดไม่ว่ามีเหตุการณ์ที่ทำให้ฉันเสี่ยงต่อการใช้สารเสพติดเพียงใดก็ตาม					
7. ถ้าฉันประสบกับสถานการณ์ที่เสี่ยงต่อการใช้ยาเสพติดฉันก็จะไม่ย่อท้อที่จะหลีกเลี่ยงการใช้สารเสพติด					
8. แม้จะมีอุปสรรคต่างๆที่ทำให้การหลีกเลี่ยงยาเสพติดเป็นเรื่องยากฉันก็ยังมุ่งมั่นที่จะฟันฝ่าอุปสรรคนั้น					
9. แม้จะมีสถานการณ์ที่บีบคั้นต่างๆก็ไม่สามารถทำให้ฉันไปใช้ยาเสพติดได้					
10. ฉันจะหลีกเลี่ยงการใช้ยาเสพติดโดยพยายามหากิจกรรมอื่นทดแทนเพื่อที่จะไม่ไปยุ่งเกี่ยวกับยาเสพติดทดแทน					
11. แม้ฉันจะมีความเครียดฉันจะไม่แก้ปัญหาโดยการใช้ยาเสพติด					
12. ฉันจะจัดการกับอารมณ์ตนเอง เช่น เศร้า หดหู่ ด้วยวิธีการอื่นๆ ที่ไม่ใช้ยาเสพติด เช่น ออกกำลังกาย อ่านหนังสือ เป็นต้น					
13. ฉันจะไม่ยอมดื่มสุราหรือของมึนเมาที่จะนำฉันไปเกี่ยวข้องกับยาเสพติดโดยเด็ดขาด					
14. ถ้าฉันมีอารมณ์อยากใช้ยาเสพติดฉันจะสามารถจัดการกับอารมณ์นั้นด้วยวิธีอื่นที่ไม่ใช้ยาเสพติด					
15. ฉันจะหลีกเลี่ยงการอยู่คนเดียวที่จะทำให้มีโอกาสคิดวนเวียนเกี่ยวกับการใช้ยาเสพติด					

ข้อคำถาม	ความคิดเห็นของท่าน				
	1	2	3	4	5
16. ฉันจะหลีกเลี่ยงการทำกิจกรรมหรือใช้เวลากับเพื่อนที่ใช้ยาเสพติด					
17. ฉันจะปฏิเสธทันทีเมื่อเพื่อนนำยาเสพติดมาและชวนให้เสพ					
18. ฉันจะหลีกเลี่ยงการใช้ยาเสพติดถึงแม้ว่าฉันจะไปงานเลี้ยงต่างๆที่มียาเสพติดอยู่					
19. ฉันจะไม่เสพยาเสพติดถึงแม้ว่ารอบๆตัวฉันจะมีแต่สิ่งที่ทำให้ฉันเสี่ยงต่อการใช้ยาเสพติด เช่น เป็นแหล่งขายยา มีเพื่อนที่เสพยา					
20. เมื่อฉันไม่สบายใจหรือมีปัญหาใดๆฉันจะไม่ใช้ยาเสพติดในการแก้ปัญหาโดยเด็ดขาด					
21. ฉันจะไม่ใช้ยาเสพติดถึงแม้ว่าคนในครอบครัวฉันบางคนใช้ก็ตาม					
22. ถึงฉันมีเงินและรู้แหล่งขายยาเสพติดฉันก็จะไม่หายามาเสพโดยเด็ดขาด					
23. ฉันพร้อมที่จะหลีกเลี่ยงและไม่เข้าไปยุ่งเกี่ยวกับยาเสพติดโดยศึกษาหาความรู้เกี่ยวกับโทษและวิธีการหลีกเลี่ยง					
24. ฉันพร้อมที่จะหลีกเลี่ยงและไม่เข้าไปยุ่งเกี่ยวกับยาเสพติดโดยการพูดคุยกับผู้รู้					
25. ฉันพร้อมที่จะหลีกเลี่ยงและไม่เข้าไปยุ่งเกี่ยวกับยาเสพติดโดยการฝึกทักษะชีวิตที่สำคัญๆที่ช่วยให้ห่างไกลยาเสพติด เช่น ทักษะการปฏิเสธ ทักษะการจัดการกับ อารมณ์ตัวเองในทางสร้างสรรค์					
26. ฉันพร้อมเสมอที่จะทำกิจกรรมใดๆที่จะช่วยให้ฉันไม่ยุ่งเกี่ยวกับยาเสพติด					

ข้อคำถาม	ความคิดเห็นของท่าน				
	1	2	3	4	5
27. ฉันพร้อมที่จะหลีกเลี่ยงการเข้าไปยุ่งเกี่ยวกับยาเสพติดโดยหาโอกาสสนทนากับผู้ที่ประสบความสำเร็จในการหลีกเลี่ยงไม่เกี่ยวข้องกับยาเสพติด					

Appendix A 02

Informed Consent Form

My name is Pichet Suwanchinda, I am a psychiatric nurse and instructor at Prince of Songkla University. Nowadays, I am a PhD. student at the Faculty of Nursing, Prince of Songkla University, Thailand. I am conducting a research study on development and psychometric evaluation of Intention to Drug Avoidance Scale (IDAS) for Thai adolescence. My research is under the direction of Assoc. Prof. Dr. Wandee Suttharangsee, and Asst. Prof. Dr. Vineekarn Kongsuwan. I am attempting to conduct the study to develop the Intention to Drug Avoidance Scale (IDAS) for Thai adolescents, and to evaluate the psychometric properties of the Intention to Drug Avoidance Scale (IDAS) for Thai adolescents. This study has been approved by the Humanities and Social Sciences Research Ethics Committee, Prince of Songkla University, and Thanyarak Songkhla Hospital.

I would like to invite your adolescence to participate in this study, as your adolescence meets the qualifications of this study. I ask you to please read my explanations of the study, and if you and your adolescence have any doubts or questions about participation please ask me. If you understand and are clear about the study, I request that you decide whether to participate. The decision to participate or not in this study depends on your willingness. You can withdraw from this study at any time without affecting your grade level in the school.

What is the risk of this study?

The data from the participants will be kept confidential and will be reported as an overview that is not specific to any one person and participants' names will not be shown. The users who can access the data are only the researcher, my advisor and the Institutional Review Board (IRB) only when it is necessary. All of the data must be kept for 2 years after this study has finished at which time the data will then be destroyed. If the methodology or anything else in this study changes, you will be notified immediately.

What are the benefits if you participate in this study?

You may not directly benefit from this research. But the results of this study may help and understanding of the intention to avoid drug abuse among Thai adolescents is beneficial evidence for designing and implementing a program to promote and enhance the intention to drug avoidance in Thai adolescents. An intention to drug avoidance scale related to drug abuse problems is a useful tool for psychiatric nurses, health care professionals and researchers to assess in an adolescent's intention to avoid drug use. Educators can integrate intention to drug avoiding components into study lessons and the nursing curriculum in addition to the nursing knowledge as well as using it as a guide to assess a drug addicted adolescent's intention to quit drugs and to promote the avoidance of drug use.

Skeptical:

If you want to know more or have any questions or concerns about this research, you can make contact via:

Researcher: Pichet Suwanchinda, Faculty of nursing, Prince of Songkla University, 15 Karnjanavanit Road, Hat Yai Songkhla 90110 Telephone number: 08-4631-7171; Email address: pichet.su@psu.ac.th

I, as the guardian of the adolescence, understand the information provided about the study and I allow my child to participate in this study.

Signature of Participant _____ Date_____

Signature of Legal Guardian_____ Date_____

Appendix A 03

Informed Consent Form (Thai Version)

แบบฟอร์มพิทักษ์สิทธิผู้เข้าร่วมวิจัย

เรียน ผู้ปกครองนักเรียนผู้เข้าร่วมวิจัย

กระผม นายพิเชษฐ์ สุวรรณจินดา ตำแหน่งอาจารย์ ภาควิชาการพยาบาลจิตเวชและสุขภาพจิต คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์ (วิทยาเขตหาดใหญ่) กำลังศึกษาต่อในระดับดุษฎีบัณฑิต สาขาการพยาบาล(นานาชาติ) มหาวิทยาลัยสงขลานครินทร์ วิทยาเขตหาดใหญ่ ขณะนี้อยู่ในระหว่างการเตรียมการทำดุษฎีนิพนธ์เรื่องการพัฒนาและการประเมินเครื่องมือวัดความตั้งใจในการหลีก เลี่ยงยาเสพติดในวัยรุ่นไทย (Development and Psychometric Evaluation of Intention to Drug Avoidance Scale (IDAS) for Thai Adolescence) โดยมีวัตถุประสงค์เพื่อสร้างเครื่องมือมาตรฐาน สำหรับวัดความตั้งใจในการหลีกเลี่ยงยาเสพติด ซึ่งจะเก็บข้อมูลโดยขอความร่วมมือจากนักเรียนที่ ยินดีตอบแบบประเมินจำนวน 390 คน ซึ่งผู้ตอบแบบประเมินนี้เป็นผู้ใต้การปกครองของท่าน ซึ่งจะ เป็นตัวแทนของวัยรุ่นไทยในภูมิภาคของท่าน ในการตอบแบบประเมินนี้ใช้ เวลาประมาณ 15-20 นาที ในการที่ผู้ใต้ปกครองของท่านเข้ามามีส่วนร่วมในการตอบแบบสอบถามนี้เป็นการอาสาโดยสมัครใจและตอบคำถามตามความเป็นจริง อันจะเป็นข้อมูลอันสำคัญในการสร้างเครื่องมือวัดความตั้งใจใน การหลีกเลี่ยงยาเสพติด เมื่อผู้ใต้ปกครองของท่านเข้าร่วมวิจัยแล้ว สามารถถอนตัวจากการ ให้ข้อมูลได้ตลอดเวลาที่เขาต้องการจะไม่มีการเปิดเผยชื่อผู้ใต้ปกครองของท่านข้อมูลที่ได้รับจะถูกนำเสนอในภาพรวมเท่านั้น

หากท่านประสงค์จะสอบถามข้อสงสัยใดๆ เกี่ยวกับการศึกษาในครั้งนี้ กรุณาติดต่อกระผมได้โดยตรง และกระผมใคร่ขอขอบคุณเป็นอย่างสูง สำหรับความร่วมมือของท่านเป็นอย่างดี ในครั้งนี้

ขอแสดงความนับถือ

.....

(นายพิเชษฐ์ สุวรรณจินดา)

หากท่านมีข้อสงสัยสามารถติดต่อ

ผู้ทำการวิจัย นายพิเชษฐ์ สุวรรณจินดา

ที่อยู่ คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์ อ.หาดใหญ่ จ.สงขลา

เบอร์โทรศัพท์ 08-4631-7171

ข้าพเจ้าเป็นผู้ปกครองของ.....

ยินยอมให้ผู้ใต้การปกครองของข้าพเจ้าเข้าร่วมในการวิจัยดังกล่าว

ลายมือชื่อผู้เข้าร่วมวิจัย _____ วัน เดือน ปี_____

ลายมือชื่อผู้ปกครอง_____ วัน เดือน ปี_____

Appendix A 04

The Social Desirability Scale-16 (SDS-16)

Instruction: Below you will find a list of statements. Please read each statement carefully and decide if that statement describes you or not. If it describes you, check the word “true”; if not, check the word “false.”

Items

1. I sometimes litter.
2. I always admit my mistakes openly and face the potential negative consequences.
3. In traffic I am always polite and considerate of others.
4. I always accept others’ opinions, even when they don’t agree with my own.
5. I take out my bad moods on others now and then.
6. There has been an occasion when I took advantage of someone else.
7. In conversations I always listen attentively and let others finish their sentences.
8. I never hesitate to help someone in case of emergency.
9. When I have made a promise, I keep it – no ifs, ands or buts.
10. I occasionally speak badly of others behind their back.
11. I would never live off other people.
12. I always stay friendly and courteous with other people, even when I am stressed out.
13. During arguments I always stay objective and matter-of-fact.
14. There has been at least one occasion when I failed to return an item that I borrowed.

15. I always eat a healthy diet.

16. Sometimes I only help because I expect something in return.

Note: Answer categories are “true” (1) and “false” (0). Items 1, 5, 6, 10, 14, and 16 are reverse keyed.

Appendix A 05

The Social Desirability Scale-16 (SDS-16) (Thai Version)

แบบทดสอบระดับความปรารถนาทางสังคม

คำชี้แจง: แบบทดสอบมีรายการข้อความที่กำหนดมาให้ กรุณาอ่านข้อความอย่างตั้งใจแล้วเลือกว่าข้อความดังกล่าวบรรยายถึงตัวท่านหรือไม่ หากข้อความดังกล่าวพูดถึงตัวท่าน กรุณาตอบ “จริง” แต่ถ้าไม่ใช่ให้ตอบว่า “ไม่จริง”

ข้อความ	จริง	ไม่จริง
1. บางครั้งฉันทิ้งขยะเรี่ยราด		
2. ฉันยอมรับความผิดพลาดอย่างเปิดเผยและพร้อมเผชิญหน้ากับผลกระทบต่างๆ ในทางลบที่จะเกิดขึ้นอยู่เสมอ		
3. บนท้องถนนหรือในการจราจร ฉันสุภาพและเห็นใส่ใจผู้อื่นเสมอ		
4. ฉันยอมรับความคิดเห็นของคนอื่นเสมอแม้ว่าพวกเขาไม่เห็นด้วยกับความคิดเห็นของฉัน		
5. บางครั้งฉันระเบิดอารมณ์ใส่คนอื่น		
6. มีบางครั้งที่ฉันเอาเปรียบคนอื่น		
7. เวลาอยู่ในวงสนทนาฉันมักจะฟังอย่างตั้งใจและให้คนอื่นพูดให้จบเสียก่อนเสมอ		
8. ฉันไม่เคยลังเลที่จะช่วยคนอื่นในสถานการณ์ฉุกเฉิน		
9. เมื่อฉันสัญญากับใครไว้ ฉันจะรักษาสัญญาไว้โดยไม่มีข้ออ้างหรือข้อแม้ใดๆ		
10. บางครั้งฉันพูดไม่ดีลับหลังคนอื่น		
11. ฉันไม่เคยอาศัยพึ่งพาเงินของคนอื่น		
12. ฉันเป็นมิตรและสุภาพกับคนอื่นเสมอแม้ว่าเมื่อฉันกำลังกระวนกระวายใจก็ตาม		
13. ขณะที่กำลังถกเถียงกัน ฉันมักจะไม่ลำเอียงและฟังข้อเท็จจริงเสมอ		
14. อย่างน้อยต้องมีครั้งหนึ่งที่ฉันลืมคืนของที่ยืมมา		
15. ฉันรับประทานอาหารที่ดีต่อสุขภาพเสมอ		
16. บางครั้งฉันช่วยเหลือคนอื่นเพราะฉันหวังสิ่งตอบแทน		

หมายเหตุ

แปลเป็นไทยโดยกระบวนการแปลย้อนหลัง (back translation) โดย ภัทราภรณ์ วรสิรินารา

Appendix B

Documents for Content Validity

B.01 Content Validity (75 items)

B.02 Content Validity (27 items)

Appendix B 01

Content Validity (75 items)

แบบประเมินความตรงตามเนื้อหา (**Content Validity Form**) ของเครื่องมือวิจัย

แบบประเมินชุดนี้เป็นแบบประเมินความตรงตามเนื้อหาของเครื่องมือวิจัย ผู้วิจัยขอความกรุณาท่านในการแสดงความคิดเห็นเกี่ยวกับระดับความสอดคล้องของเนื้อหา (Relevancy) โดย 4=สอดคล้องดีมาก, 3=สอดคล้องดี, 2=สอดคล้องเล็กน้อย, 1=ไม่สอดคล้อง รวมถึงความชัดเจน (Clarity) ความกระชับ (conciseness) ของคำถาม โดยทำเครื่องหมายถูก (√) ลงในช่องที่ตรงกับความคิดท่านหลังคำถามแต่ละข้อ <u>และหากข้อ คำถามใดที่ท่านเห็นว่าสอดคล้องเล็กน้อย ไม่สอดคล้อง ไม่ชัดเจนหรือไม่กระชับ สมควรแก่การปรับปรุงหรือมีข้อเสนอแนะอื่นๆ กรุณาเติม ข้อความในช่องแสดงข้อเสนอแนะดังกล่าว</u> ผู้วิจัยขอขอบพระคุณท่าน ในการอนุเคราะห์ ในครั้งนี้

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
1. การควบคุมตนเองและแรงจูงใจในการหลีกเลี่ยงยาเสพติด									
1.1 การตั้งเป้าหมายในการหลีกเลี่ยงยาเสพติด									
1. ฉันเชื่อว่าการตั้งเป้าหมายที่ชัดเจนว่าไม่ยุ่งเกี่ยวกับยาเสพติดเป็นจุดเริ่มต้นของการหลีกเลี่ยงยาเสพติด									

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
2. การที่ฉันห่างไกลจากยาเสพติดได้ก็เท่ากับฉันประสพความสำเร็จในชีวิตแล้ว									
3. ฉันมีเป้าหมายชัดเจนว่าตลอดชีวิตของฉันฉันต้องไม่เกี่ยวข้องกับยาเสพติดไม่ว่ากรณีใดๆก็ตาม									
4. ฉันเชื่อเสมอว่าคนที่จะประสบความสำเร็จที่ไม่ยุ่งเกี่ยวกับยาเสพติดได้ดีนั้นต้องมีเป้าหมายที่ชัดเจน									
5. ฉันคิดเสมอว่าการที่จะหลีกเลี่ยงจากยาเสพติดได้ดีนั้นต้องเริ่มที่การมีเป้าหมายที่ชัดเจน									
1.2 แรงจูงใจที่ทำให้เป้าหมายประสบความสำเร็จ									
1. ครอบครัวเป็นแรงจูงใจสำคัญที่ทำให้ฉันไม่ยุ่งเกี่ยวกับยาเสพติดได้ตามที่คิดไว้									
2. การได้รับการยอมรับจากผู้อื่นช่วยให้ฉันมีแรงบันดาลใจที่ไม่ยุ่งเกี่ยวกับยาเสพติด									
3. การเป็นคนดีของสังคมเป็นแรงผลักดันช่วยให้									

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
ฉันไม่เกี่ยวข้องกับยาเสพติด									
4. ความสำเร็จในการเรียนเป็นแรงจูงใจให้ฉันหลีกเลี่ยงยาเสพติดได้ตามที่ต้องการ									
5. การมองเห็นอนาคตที่ดีทำให้ฉันมุ่งมั่นในการไม่ยุ่งเกี่ยวกับยาเสพติดอย่างจริงจัง									
6. ฉันมีความตั้งใจที่จะหลีกเลี่ยงยาเสพติดอย่างจริงจังเพื่อไม่ให้ถูกตราหน้าว่าขี้ยา									
1.3 การควบคุมตนเองเพื่อหลีกเลี่ยงและไม่ยุ่งเกี่ยวกับยาเสพติด									
1. ฉันมีวินัยในตนเองเป็นหลักในการใช้ชีวิตประจำวันเพื่อห่างไกลยาเสพติด									
2. ฉันเป็นคนมีจิตใจเข็มแข็งไม่เสพยาเสพติดแม้บางครั้งจะถูกเพื่อนอ้อนวอนหรือข่มขู่ก็ตาม									
3. ฉันจะไม่เสพยาเสพติดเนื่องจากขัดต่อคำสอนทางศาสนาที่ฉันนับถือ									

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
4. ฉันเคยโดยคนอื่นชักชวนให้เสพยาเสพติดแต่ฉันควบคุมตัวเองได้จึงไม่ใช้ยาเสพติด									
5. ฉันสามารถหักห้ามใจตัวเองไม่ให้ไปยุ่งเกี่ยวกับยาเสพติด									
2. ความมุ่งมั่นที่จะอยู่ห่างจากยาเสพติดและไม่ยุ่งเกี่ยวแม้มีสถานการณ์ที่ยากลำบาก									
2.1 ทุ่มเท อดทน ไม่ย่อท้อต่ออุปสรรค ที่จะหลีกเลี่ยงและไม่ยุ่งเกี่ยวกับยาเสพติดแม้มีสถานการณ์เสี่ยง									
1. ฉันสามารถอดทนต่อแรงกดดันต่างๆที่จะนำไปสู่การเสพยาเสพติด									
2. ฉันสามารถบริหารจัดการตนเองได้โดยไม่พึ่งพายาเสพติดแม้จะมีสถานการณ์เสี่ยง									
3. ทุกคนต้องประสบปัญหาต่างๆถ้าฉันประสบปัญหาที่เสี่ยงเกี่ยวกับยาเสพติด ฉันก็จะไม่ย่อท้อ									
4. แม้จะมีอุปสรรคต่างๆที่ทำให้การหลีกเลี่ยงยาเสพติดเป็นเรื่องยากฉันก็มุ่งมั่นที่จะทำและฝันฝ่าปัญหานั้น									

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
5. ฉันคิดว่าปัญหาทุกปัญหามีทางแก้เสมอไม่จำเป็นต้องไปใช้ยาเสพติด									
6. สถานการณ์ที่บีบคั้นต่างๆก็ไม่สามารถทำให้ฉันไปใช้ยาเสพติดได้									
7. ฉันจะหลีกเลี่ยงการใช้ยาเสพติดและพยายามหากิจกรรมอื่นเพื่อให้ไม่ไปยุ่งเกี่ยวกับยาเสพติด									
8. ฉันเชื่อว่ามีหลายแนวทางที่จะหลีกเลี่ยงยาเสพติดแม้จะอยู่ในภาวะกดดันในชีวิต									
2.2 มุ่งมั่นจัดการสิ่งเร้าให้ที่เกี่ยวกับยาเสพติด									
1. เมื่อฉันมีความเครียดฉันก็จะไม่ใช้ทางแก้ปัญหาโดยการใช้ยาเสพติด									
2. ฉันสามารถควบคุมจิตใจตัวเองไม่ให้ยุ่งเกี่ยวกับยาเสพติด									
3. เมื่อฉันมีอารมณ์อยากลองใช้ยาเสพติดตามเพื่อน แต่ฉันก็สามารถจัดการอารมณ์นั้นได้									

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
4. ฉันสามารถจัดการกับอารมณ์ตัวเองเศร้า หดหู่ในทางสร้างสรรค์ เช่น ออกกำลังกาย ดูหนัง									
5. ฉันจะไม่เสพยาแม้ว่ารุ่นพี่จะกดดันหรือบังคับให้เสพยาเสพติดก็ตาม									
6. ฉันพยายามหลีกเลี่ยงเพื่อนที่ใช้สารเสพติด									
7. ฉันจะหลีกเลี่ยงคบเพื่อนที่เสพยาเสพติดหรือเกี่ยวข้องกับยาเสพติด									
8. ฉันจะปฏิเสธเพื่อนเมื่อชวนหรือทดลองให้ใช้ยาเสพติด									
9. ฉันจะปฏิเสธทันทีเมื่อเพื่อนนำยาเสพติดมาและชวนให้เสพ									
10. ถ้าฉันอยู่ในกลุ่มเพื่อนที่เสพยาฉันก็ไม่มีความคิดที่จะเสพยาด้วย									
11. ฉันจะพยายามคบกับเพื่อนกลุ่มที่ไม่ยุ่งเกี่ยวกับยาเสพติด									

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
12. ฉันสามารถดำรงตนด้วยการไม่เสพยาเสพติดถึงแม้ว่าสถานที่พักอาศัยจะมีการระบาดของยาเสพติดก็ตาม									
13. ฉันจะหลีกเลี่ยงจากยาเสพติดถึงแม้ว่าฉันจะไปงานเลี้ยงต่างๆที่มียาเสพติดอยู่									
14. ฉันพยายามอยู่ในสิ่งแวดล้อมที่ไม่มีสารเสพติด									
15.ฉันจะไม่ยอมดื่มสุราหรือของมึนเมาเด็ดขาดเพื่อช่วยให้ฉันไม่ไปเกี่ยวข้องกับยาเสพติด									
16. ฉันจะพยายามหลีกเลี่ยงไม่เข้าไปในสถานที่ที่มีคนใช้ยาเสพติด									
17. ฉันจะหลีกเลี่ยงการใช้ยาเสพติดเพราะ โรงเรียน มีกฎระเบียบที่เข้มงวด									
18. ฉันจะไม่ใช้ยาเสพติดถึงแม้ว่าคนในครอบครัวฉันบางคนใช้ก็ตาม									

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
19. เมื่อฉันทะเลาะกับพ่อแม่หรือบุคคลในครอบครัวฉันจะไม่ประชดโดยไปใช้ยาเสพติด									
20. เมื่อฉันมีเงินฉันสามารถจัดการกับเงินโดยไม่มียาเสพติดเข้ามาเกี่ยวข้อง									
21. ถ้าฉันมีเงินมากมายฉันก็ไม่สนใจที่จะหาซื้อยาเสพติดมาเสพ									
22.แม้ฉันมีเงินและรู้แหล่งขายยาเสพติดฉันก็ไม่สนใจที่จะซื้อ									
3.ความเต็มใจที่จะหลีกเลี่ยงและไม่ยุ่งเกี่ยวกับยาเสพติด									
3.1 เจตคติทางลบต่อยาเสพติดและผู้ใช้ยา									
1. ฉันเชื่อว่าการใช้ยาเสพติดจะส่งผลด้านลบในชีวิต									
2. การเสพยาเสพติดมีความผิดตามกฎหมาย									
3. การใช้ยาเสพติดจะทำให้สูญเสียสติสัมปชัญญะ									
4. การติดยาเสพติดเมื่อใช้แล้วยากที่จะเลิกจากมัน									

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
5. การดื่มของมึนเมาเป็นช่องทางให้มีการเสพยาเสพติดได้ง่าย									
6. การใช้ยาเสพติดส่งผลเสียต่อร่างกาย จิตใจ									
7. ยาเสพติดทำลายอนาคตและก่อให้เกิดปัญหาอาชญากรรม									
8. ผลของยาเสพติดก่อให้เกิดอาการป่วยและสุขภาพเสื่อมโทรม									
9. จากประสบการณ์ที่ผ่านมาของฉันพบว่าเพื่อนที่ติดยาเสพติดจะหมดอนาคตทางการศึกษา									
10. ฉันคิดว่าคนที่ใช้ยาเสพติดมักไม่เป็นที่ต้องการของสังคม									
11. ฉันคิดว่าผู้ที่ใช้ยาเสพติดมักก่อปัญหาอาชญากรรม									
12. ฉันเชื่อว่าผู้ที่ติดยาเสพติดมีโอกาสที่จะเลิกเสพได้ยาก									

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
13. ฉันมองว่าผู้ที่ใช้ยาเสพติดมักมีอาการทางจิตและไม่สามารถควบคุมอารมณ์ตนเองได้									
3.2 ความรับผิดชอบต่อสังคม									
1. ฉันมีหน้าที่ต้องเรียนหนังสือฉะนั้นฉันจะไม่ยุ่งเกี่ยวกับยาเสพติด									
2. ฉันไม่อยากเพิ่มปัญหาสังคมด้วยการไปเสพยาเสพติด									
3. ฉันมักจะตักเตือนเพื่อนถ้าหากเขาไปยุ่งเกี่ยวกับยาเสพติด									
4. ฉันมีส่วนร่วมจัดนิทรรศการเกี่ยวกับยาเสพติดเพื่อรณรงค์ให้ผู้อื่นห่างไกลจากยาเสพติด									
5. ฉันพยายามโน้มน้าวใจเพื่อนที่เสพยาเสพติดให้เลิกใช้หรือเข้ารับการรักษา									
6. ฉันเข้าร่วมกลุ่มกับเพื่อนเพื่อช่วยเหลือเพื่อนที่ติดยาเสพติด									

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
3.3 ความรู้ที่เกี่ยวข้องกับยาเสพติด									
1. ฉันพยายามศึกษาถึงโทษภัยยาเสพติดเพื่อที่จะห่างไกลจากมัน									
2. ฉันมักหาโอกาสสนทนากับผู้ประสบความสำเร็จในการหลีกเลี่ยงยาเสพติด									
3. ฉันชอบอ่านหนังสือหรือหาความรู้จากอินเตอร์เน็ตที่เกี่ยวข้องกับการหลีกเลี่ยงยาเสพติด									
4. ฉันติดตามข่าวสารเกี่ยวกับยาเสพติดสม่ำเสมอ									
5. ฉันติดตามความเคลื่อนไหวเกี่ยวกับยาเสพติดจากผู้ที่มีชื่อเสียง									
6. ฉันชอบหาความรู้จากภาพยนตร์ที่สะท้อนถึงพิษภัยยาเสพติด									
7.ฉันฝึกทักษะชีวิตเพื่อให้รู้จักการปฏิเสธยาเสพติด									

Appendix B 02

Content Validity (27 items)

แบบประเมินความตรงตามเนื้อหา (**Content Validity Form**) ของเครื่องมือวิจัย

แบบประเมินชุดนี้เป็นแบบประเมินความตรงตามเนื้อหาของเครื่องมือวิจัย ผู้วิจัยขอความกรุณาท่านในการแสดงความคิดเห็นเกี่ยวกับระดับความสอดคล้องของเนื้อหา (Relevany) โดย 4=สอดคล้องดีมาก, 3=สอดคล้องดี, 2=สอดคล้องเล็กน้อย, 1=ไม่สอดคล้อง รวมถึงความชัดเจน (Clarity) ความกระชับ (conciseness) ของคำถาม โดยทำเครื่องหมายถูก (√) ลงในช่องที่ตรงกับความคิดท่านหลังคำถามแต่ละข้อ <u>และหากข้อ คำถามใดที่ท่านเห็นว่า สอดคล้องเล็กน้อย ไม่สอดคล้อง ไม่ชัดเจนหรือไม่กระชับ สมควรแก่การปรับปรุงหรือมีข้อเสนอแนะอื่นๆ กรุณาเติม ข้อความในช่องแสดงข้อเสนอแนะดังกล่าว</u> ผู้วิจัยขอขอบพระคุณท่าน ในการอนุเคราะห์ ในครั้งนี้

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
1. Desire to stay away from drug and not taken drug									
1. ฉันต้องการจะหลีกเลี่ยงและไม่ยุ่งเกี่ยวกับยาเสพติดไม่ว่ากรณีใดๆก็ตามโดยฉันจะกำหนดเป้าหมาย									

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
ชีวิตที่ชัดเจนเป็นไปได้เพื่อที่จะเป็นคนดีมีความรับผิดชอบต่อสังคม									
2) ฉันต้องการจะหลีกเลี่ยงและไม่ยุ่งเกี่ยวกับยาเสพติดไม่ว่ากรณีใดๆก็ตามโดยฉันจะทำทุกวิถีทางเพื่อให้บรรลุเป้าหมายชีวิตที่ฉันวางไว้ด้วยวิธีการที่ไม่ทำให้ตัวเองและผู้อื่นและสังคมเดือดร้อน									
3) ฉันต้องการที่จะหลีกเลี่ยงและไม่ยุ่งเกี่ยวกับยาเสพติดโดยพยายามจะอยู่หรือหลีกเลี่ยงเหตุการณ์หรือเพื่อนที่จะชักนำไปสู่การเสพยาเสพติด									
4) ฉันต้องการหลีกเลี่ยงยาเสพติดโดยพยายามดูแลตนเองและบอกกับตัวเองเสมอว่าจะอยู่ในสิ่งแวดล้อมที่ปลอดจากยาเสพติด									
2. Commitment to stay away from drugs and not taken drugs even in difficult situation.									

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
1) ฉันจะอดทนต่อแรงกดดันต่างๆที่จะนำไปสู่การเสพยาเสพติด									
2) เมื่อมีปัญหาใดๆเกิดขึ้นฉันจะจัดการกับปัญหาเหล่านั้นโดยไม่ใช้ยาเสพติดไม่ว่ามีเหตุการณ์ที่ทำให้ฉันเสี่ยงต่อการใช้สารเสพติดเพียงใดก็ตาม									
3) ถ้าฉันประสบกับสถานการณ์ที่เสี่ยงต่อการใช้ยาเสพติดฉันก็จะไม่ย่อท้อที่จะหลีกเลี่ยงการใช้ยาเสพติด									
4) แม้จะมีอุปสรรคต่างๆที่ทำให้การหลีกเลี่ยงยาเสพยาติดเป็นเรื่องยากฉันก็ยังมุ่งมั่นที่จะฟันฝ่าอุปสรรคนั้น									
5) แม้จะมีสถานการณ์ที่บีบคั้นต่างๆก็ไม่สามารถทำให้ฉันไปใช้ยาเสพติดได้									

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
6) ฉันจะหลีกเลี่ยงการใช้ยาเสพติดโดยพยายามหากิจกรรมอื่นทดแทนเพื่อที่จะไม่ไปยุ่งเกี่ยวกับยาเสพติดทดแทน									
7) แม้ฉันจะมีความเครียดฉันจะไม่แก้ปัญหาโดยการใช้ยาเสพติด									
8) ฉันจะจัดการกับอารมณ์ตนเอง เช่น เศร้า หดหู่ ด้วยวิธีการอื่นๆที่ไม่ใช้ยาเสพติด เช่น ออกกำลังกาย อ่านหนังสือ เป็นต้น									
9) ฉันจะไม่ยอมดื่มสุราหรือของมึนเมาที่จะนำฉันไปเกี่ยวข้องกับยาเสพติดโดยเด็ดขาด									
10) ถ้าฉันมีอารมณ์อยากใช้ยาเสพติดฉันจะสามารถจัดการกับอารมณ์นั้นด้วยวิธีอื่นที่ไม่ใช้ยาเสพติด									
11) ฉันจะหลีกเลี่ยงการอยู่คนเดียวที่จะทำให้มีโอกาสคิดวนเวียนเกี่ยวกับการใช้ยาเสพติด									

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
12) ฉันจะหลีกเลี่ยงการทำกิจกรรมหรือใช้เวลากับเพื่อนที่ใช้ยาเสพติด									
13) ฉันจะปฏิเสธทันทีเมื่อเพื่อนนำยาเสพติดมาและชวนให้เสพ									
14) ฉันจะหลีกเลี่ยงการใช้ยาเสพติดถึงแม้ว่าฉันจะไปงานเลี้ยงต่างๆที่มียาเสพติดอยู่									
15) ฉันจะไม่เสพยาเสพติดถึงแม้ว่ารอบๆตัวฉันจะมีแต่สิ่งที่ทำให้ฉันเสี่ยงต่อการใช้ยาเสพติด เช่น เป็นแหล่งขายยา มีเพื่อนที่เสพยา									
16) เมื่อฉันไม่สบายใจหรือมีปัญหาใดๆ ฉันจะไม่ใช้ยาเสพติดในการแก้ปัญหาโดยเด็ดขาด									
17) ฉันจะไม่ใช้ยาเสพติดถึงแม้ว่าคนในครอบครัวฉันบางคนใช้ก็ตาม									
18) ถึงฉันมีเงินและรู้แหล่งขายยาเสพติดฉันก็จะไม่หายมาเสพโดยเด็ดขาด									

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
3. Willingness to stay away from drugs and not taken drugs.									
1) ฉันพร้อมที่จะหลีกเลี่ยงและไม่เข้าไปยุ่งเกี่ยวกับยาเสพติดโดยศึกษาหาความรู้เกี่ยวกับโทษและวิธีการหลีกเลี่ยง									
2) ฉันพร้อมที่จะหลีกเลี่ยงและไม่เข้าไปยุ่งเกี่ยวกับยาเสพติดโดยพูดคุยกับผู้รู้									
3) ฉันพร้อมที่จะหลีกเลี่ยงและไม่เข้าไปยุ่งเกี่ยวกับยาเสพติดโดยการฝึกทักษะชีวิตที่สำคัญๆที่ช่วยให้ห่างไกลยาเสพติด เช่น ทักษะการปฏิเสธ ทักษะการจัดการกับอารมณ์ตัวเองใน ทางสร้างสรรค์									
4) ฉันพร้อมเสมอที่จะทำกิจกรรมใดๆที่จะจะช่วยให้ฉันไม่ยุ่งเกี่ยวกับยาเสพติด									

ข้อคำถาม	ความสอดคล้องกับเนื้อหาที่ต้องการวัด				ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
5) ฉันพร้อมที่จะหลีกเลี่ยงการเข้าไปยุ่งเกี่ยวกับยาเสพติดโดยหาโอกาสสนทนากับผู้ที่ประสบความสำเร็จในการหลีกเลี่ยงไม่เกี่ยวข้องกับยาเสพติด									

Appendix C

Documents for Requesting Interviews

C.01 Individual Interviews

Appendix C 01

Individual Interview

ตอนที่ 1 ข้อมูลส่วนตัว

โปรดกรอกข้อความและใส่เครื่องหมาย / หน้าข้อที่ตรงกับสภาพของท่าน

1. เพศ ( ) ชาย ( ) หญิง
2. อายุ ..... ปี
3. การศึกษา

( ) 1. ไม่ได้เรียน ( ) 2. ประถมศึกษา ปีที่ .....

( ) 3. มัธยมศึกษา ปีที่ ..... ( ) 4. ปวช. ปีที่ .....

( ) 5. ปวส. ปีที่ .....

4. การนับถือศาสนา

( ) 1. พุทธ ( ) 2. อิสลาม

( ) 3. คริสต์ ( ) 4. อื่นๆ .....

5. การใช้เงินในเฉลี่ยแต่ละวัน ..... บาท

6. ที่มาของรายได้ ระบุ .....

7. สภาพครอบครัวปัจจุบัน

( ) 1. บิดามารดาอยู่ด้วยกัน ( ) 2. บิดามารดาแยกกันอยู่

( ) 3. บิดามารดาอย่าร้างกัน ( ) 4. บิดาหรือมารดาเสียชีวิต

8. ปัจจุบันท่านพักอาศัยอยู่แหล่งใด

( ) 1. บ้านตนเอง ( ) 2. หอพัก

( ) 3. บ้านญาติ ( ) 4. คอนโดมิเนียม

( ) 5. อื่นๆ ระบุ .....

9. ปัจจุบันท่านพักอาศัยอยู่กับใคร

( ) 1. ครอบครัว ( ) 2. ญาติพี่น้อง

( ) 3. เพื่อน ( ) 4. แฟน

( ) 5. คนเดียว ( ) 6. อื่นๆ ระบุ .....

ตอนที่ 2 แบบสอบถามความรู้และประสบการณ์เกี่ยวกับสารเสพติด

โปรดกรอกข้อความและใส่เครื่องหมาย / หน้าข้อที่ตรงกับสภาพของท่าน

1. ท่านได้รับความรู้เรื่องยาเสพติดจากแหล่งใด (เรียงลำดับจากมากไปน้อย)

.....1. โทรทัศน์ .....2. หนังสือพิมพ์ .....3. วิทยุ

..... 4. อินเตอร์เน็ต .....5. เพื่อน .....6. สถานศึกษา

.....7. อื่นๆ ระบุ.....

2. ท่านเคยเสพยาเสพติดหรือไม่ (ถ้าไม่เคยให้ข้ามไปข้อ 3)

( ) เคย ( ) ไม่เคย (ข้ามไปข้อ 3)

ถ้าเคยเป็นยาเสพติดชนิดใดบ้าง (ตอบได้มากกว่า 1 ข้อ)

( ) 1. เครื่องดื่มแอลกอฮอร์ ( ) 2. บุหรี่

( ) 3. ยาบ้า ( ) 4. กัญชา

( ) 5. กระท่อม ( ) 6. เฮโรอีน

( ) 7. ยากล่อมประสาท ( ) 8. อื่นๆ ระบุ .....

ถ้าเคยมีสาเหตุมาจากอะไร (ตอบได้มากกว่า 1 ข้อ)

( ) 1. เพื่อนชักชวน ( ) 2.อยากรู้อยากลอง ( ) 3. มีปัญหาครอบครัว

( ) 4. การเจ็บป่วย ( ) 5. โดนบังคับ ( ) 6. การเลียนแบบ

( ) 6. การประชดชีวิต ( ) 7. อยู่ใกล้แหล่งยาเสพติด

( ) 8. อื่นๆ ระบุ .....

3. ท่านเคยมีเพื่อนที่เสพยาเสพติดหรือไม่

( ) 1. มี ( ) 2. ไม่มี (ข้ามไปข้อ 4)

ถ้ามีเพื่อนท่านเสพยาเสพติดชนิดใด (ตอบได้มากกว่า 1 ข้อ)

( ) 1. เครื่องดื่มแอลกอฮอร์ ( ) 2. บุหรี่

( ) 3. ยาบ้า ( ) 4. กัญชา

( ) 5. กระท่อม ( ) 6. เฮโรอีน

( ) 7. ยากล่อมประสาท ( ) 8. บุอื่น ๆ ระบุ .....

4. ท่านคิดว่ากิจกรรมใดช่วยส่งเสริมให้ห่างไกลจากสารเสพติด

ระบุ (ตอบได้มากกว่า 1 กิจกรรม)

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<u>แนวทางประเด็นการสัมภาษณ์</u>

1. ความตั้งใจ

    1.1 ให้ความหมายของความตั้งใจ

    1.2 องค์ประกอบของความตั้งใจ

    1.3 ลำดับในการเกิดความตั้งใจ

2. การหลีกเลี่ยง

    2.1 ให้ความหมายของการหลีกเลี่ยง

    2.2 องค์ประกอบของการหลีกเลี่ยง

    2.3 ลำดับในการเกิดการหลีกเลี่ยง

3. ความตั้งใจในการหลีกเลี่ยงยาเสพติด

    3.1 ให้อธิบายว่าตั้งใจในการหลีกเลี่ยงยาเสพติดคืออะไร

    3.2 ให้อธิบายว่าตั้งใจในการหลีกเลี่ยงยาเสพติดเป็นอย่างไรบ้าง

    3.3 เราจะมีวิธีการตั้งใจในการหลีกเลี่ยงยาเสพติดเป็นทำอย่างไรบ้าง

4. ปัจจัยอะไรที่เกี่ยวข้องให้ความตั้งใจในการหลีกเลี่ยงยาเสพติดประสบความสำเร็จ

5. ปัจจัยอะไรที่เกี่ยวข้องให้ความตั้งใจในการหลีกเลี่ยงยาเสพติดเกิดความล้มเหลว

6. ท่านมีวิธีการปฏิบัติตัวอย่างไรเพื่อให้เกิดการหลีกเลี่ยงยาเสพติด

APPENDIX D

LIST OF EXPERTS

LIST OF CONTENT VALIDITY EXPERTS

Associate Professor Dr. Nidtaya Takviriyanun, RN.

Faculty of Nursing, Thammasat University, Bangkok, Thailand.

Associate Professor Dr. Pajongsil Perngmark, RN.

Faculty of Nursing, Prince of Songkla University, Songkhla, Thailand.

Miss Sasakorn Vichai, CP.

Clinical Psychologist, Senior Professional Level, Child and Adolescence Mental Health Institute Rajanagarindra, Bangkok, Thailand.

Dr. Nopporn Tantirangsee, MD.

Psychiatrist, Expert Level, Songkhla Rajanagarindra Psychiatric Hospital, Songkhla, Thailand.

Miss Jittima Kreattanong, MD.

Psychiatrist, Expert Level, Songkhla Rajanagarindra Psychiatric Hospital, Songkhla, Thailand.

APPENDIX E

INSTITUTIONAL REVIEW BOARD (IRB)

เอกสารรับรองโครงการวิจัย
โดยคณะกรรมการจริยธรรมการวิจัยในมนุษย์
สาขาสังคมศาสตร์และพฤติกรรมศาสตร์ มหาวิทยาลัยสงขลานครินทร์

รหัสรับโครงการ: 2018 NSt – Qn 018

ชื่อโครงการ: การสร้างและประเมินเครื่องมือวัดความตั้งใจในการหลีกเลี่ยงยาเสพติดในวัยรุ่นไทย (Development and Psychometric Evaluation of Intention to Drug Avoidance Scale (IDAS) for Thai Adolescents.)

รหัสหนังสือรับรอง: PSU IRB 2018 – NSt 016

ชื่อหัวหน้าโครงการ: นายพิเชษฐ์ สุวรรณจินดา

หน่วยงานที่สังกัด: หลักสูตรปรัชญาดุษฎีบัณฑิต สาขาการพยาบาล (นานาชาติ) คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์

เอกสารที่รับรอง:
1. แบบเสนอโครงการเข้ารับการประเมินจริยธรรมในงานวิจัย
2. เครื่องมือวิจัย
3. ใบเชิญชวนและใบยินยอมเข้าร่วมการวิจัย

วันที่รับรอง: 14 กุมภาพันธ์ 2561

วันที่หมดอายุ: 14 กุมภาพันธ์ 2563

ขอรับรองว่าโครงการดังกล่าวข้างต้น ได้ผ่านการพิจารณาเห็นชอบโดยสอดคล้องกับหลักการเบลมองต์ (Belmont) จากคณะกรรมการจริยธรรมการวิจัยในมนุษย์ สาขาสังคมศาสตร์และพฤติกรรมศาสตร์ มหาวิทยาลัยสงขลานครินทร์

(ลงนาม).....
(รองศาสตราจารย์ ดร.อรัญญา เชาวลิต)
ประธานคณะกรรมการจริยธรรมการวิจัยในมนุษย์
สาขาสังคมศาสตร์และพฤติกรรมศาสตร์ มหาวิทยาลัยสงขลานครินทร์

VITAE

Name Mr. Pichet Suwanchinda

Student ID 5710430014

Educational Attainment

Degree	Name of Institution	Year of Graduation
Certificate in Nursing Science (Technical level)	Boromarajonani College of Nursing, Sawanpracharak	1996
Bachelor of Nursing Science	Boromarajonani College of Nursing, Songkhla	2004
Master of Science (Mental health and psychiatric nursing)	Prince of Songkla University	2007

Scholarship Award during Enrolment

The dissertation grant, the Faculty of Nursing, Prince of Songkla University.

Work-Position and Address

Lecturer, Division of Psychiatric and Mental Health Nursing, Faculty of Nursing, Prince of Songkla University.

List of Publication and Proceeding

Suwanchinda, P., Suttharangsee, W., & Kongsuwan, V. (2018). Concept analysis: Intention to drugs avoidance in adolescents. Journal of Alcoholism & Drug Dependence, 6(3), 1-3. doi:10.4172/2329-6488.1000313

Suwanchinda, P., Suttharangsee, W., & Kongsuwan, V. (2018). Intention to drugs avoidance in Thai adolescents, Poster presentation in Sigma Theta Tau International Honor Society of Nursing, Phi Omega Chapter-at Large (Moving Towards Global Health Leaders: A Call for Nurses), Bangkok, Thailand.