Situational Analysis of Adolescent Attempted Suicide in Chaiprakarn District, Chiangmai Province, Thailand

Mr. Jakchai Tittabut

A Thesis Submitted in Partial Fulfillment of the Requirements

for the Degree of Master of Public Health Program in Public Health

College of Public Health Sciences

Chulalongkorn University

Academic Year 2011

การวิเคราะห์สถานการณ์พยายามฆ่าตัวตายของวัยรุ่นในอำเภอไชยปราการ จังหวัดเชียงใหม่ ประเทศไทย

นายจักร์ชัย ติตตะบุตร

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาสาธารณสุขศาสตรมหาบัณฑิต
สาขาวิชาสาธารณสุขศาสตร์
วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย
ปีการศึกษา 2554

Thesis Title	SITUATIONALANALYSIS OF ADOLESCENT SUICIDE IN CHAIPRAKARN DISTRICT, CHIANGMAI PROVINCE, THAILAND
By	Mr.Jakchai Tittabut
Field of Study	Public Health
Thesis Advisor	Alessio Panza, MD,M.Com.H,DTM&H.

Accepted by the College of Public Health Sciences, Chulalongkorn University in Partial Fulfillment of the Requirements for the Master's Degree

…… Dean of the College of Public Health Sciences

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THESIS COMMITTEE

…… Chairman

(Wattasit Siriwong, Ph.D.)

…… Thesis Advisor

(Alessio Panza, M.D, M.Com.H, DTM&H.)

…… External Examiner

(Professor Sirikul Isaranuruk, M.D.,M.P.H)

จักร์ชัย ติตตะบุตร : การวิเคราะห์สถานการณ์พยายามฆ่าตัวตายของวัยรุ่นในอำเภอไชยปราการ จังหวัดเชียงใหม่ ประเทศไทย (Situation Analysis of Adolescent Attempted Suicide in Chaiprakarn district, Chiang Mai province, Thailand) อาจารย์ที่ปรึกษาวิทยานิพนธ์หลัก: แอเลสซิโอ พันซ่า M.D, M.Com.H, D.T.M. &H.,49 หน้า

การศึกษาดำเนินการช่วงเดือนพฤษภาคมถึงสิงหาคม2554 ทบทวนข้อมูลย้อนหลัง 5 ปีของผู้ฆ่าตัวตายช่วงวัยรุ่นทั้งหมด 30 ราย โดยมีผู้ฆ่าตัวตายสำเร็จ 3 ราย ไม่ได้อาศัยอยู่ในอำเภอไชยปราการ 4 ราย คงเหลือผู้พยายามฆ่าตัวตาย 23 รายในการศึกษาโดยตอบแบบสอบถามเกี่ยวกับ ปัจจัยทางสังคม-ประชากรศาสตร์และพฤติกรรมของวัยรุ่นและบิดามารดา ปัจจัยทางสุขภาพจิต ภาวะซึมเศร้าโดยใช้แบบประเมิน 9 คำถาม และภาวะเสี่ยงต่อการฆ่าตัวตายโดยใช้แบบประเมิน 8 คำถาม มีวิธีการศึกษาเพิ่มเติมโดยการทบทวนเวชระเบียนของวัยรุ่นผู้กระทำการฆ่าตัวตายทั้งหมด คำนวณการวิเคราะห์เชิงพรรณนาและทดสอบไคแสควร์ดดยใช้โปรแกรมลิขสิทธิ์ SPSS รุ่น 17 ที่ระดับนัยสำคัญ 95% ($p < 0.05$)

การศึกษาพบว่าอัตราความชุกของการพยายามฆ่าตัวตายและฆ่าตัวตายสำเร็จของวัยรุ่นในอำเภอไชยปราการมีค่า 13.3 ใกล้เคียงกับอัตราความชุกของการฆ่าตัวตายของผู้ใหญ่ในปี พ.ศ.2552 จังหวัดเชียงใหม่มีค่า 13.7 และอำเภอไชยปราการมีค่า 14.9 มีค่าต่ำกว่าอัตราความชุกของโลกซึ่งมีค่า 5.96 และต่ำกว่าค่าที่แนะนำซึ่งมีค่า 6.3 มีพิสัยการกระจายของอายุช่วง 12 ถึง 19 ปี (mean15.74, SD1.98) โดยมีเพศหญิงมากกว่าเล็กน้อย(56.5%) วัยรุ่นทั้งหมดนับถือศาสนาพุทธส่วนใหญ่ (65.2%). ปฏิบัติกิจกรรมทางศาสนา มีความสัมพันธ์อย่างมีนัยสำคัญระหว่างภาวะเสี่ยงต่อการฆ่าตัวตาย ได้แก่ ไม่ประกอบกิจกรรมทางศาสนาที่วัดของวัยรุ่น (Chi–Square15.836, p-value 0.015) และของมารดา(Chi–Square23.000, p-value 0.001), พฤติกรรมทำร้ายร่างกายคนรัก(Chi–Square 42.475, p-value 0.001), การดื่มเครื่องดื่มแอลกอฮอล์ (Chi–Square 10.000, p-value 0.019), การยอมรับในปัญหาด้านสุขภาพจิตของผู้เข้าร่วมการศึกษาโดยแพทย์หรือพยาบาล (Chi–Square 11.291, p-value 0.504), และความปรารถนาในเพศเดียวกัน (Chi–Square 23.000, p-value 0.001). ภาวะซึมเศร้าซึ่งเป็นตัวแปรอิสระตัวแปรหนึ่งไม่มีความสัมพันธ์อย่างมีนัยสำคัญกับภาวะเสี่ยงต่อการฆ่าตัวตายในวัยรุ่น

ผลการศึกษาส่วนใหญ่เข้าได้กับกรอบแนวคิดในการศึกษา ปัญหาด้านสุขภาพจิตบางด้านรวมถึง ภาวะซึมเศร้าและการฆ่าตัวตายอาจรายงานต่ำกว่าความเป็นจริงไว้เนื่องจากผู้เข่าร่วมการศึกษารู้สึกไม่ปลอดภัยหรือไม่มั่นใจ จัดเป็นกลไกการป้องกันทางจิตประเภทหนึ่งของผู้เข้าร่วมการศึกษาซึ่งเคยกระทำการพยายามฆ่าตัวตายในอดีตที่ผ่านมา การเก็บข้อมูลได้ไม่ครบที่สำนักงานสาธารณสุขจังหวัดเชียงใหม่นั้นขาดหายไปบางข้อมูล ซึ่งอาจส่งผลต่อความไร้นัยสำคัญของตัวแปรอิสระ การประสานงานร่วมกันในชุมชนและโรงเรียนมัธยมโดยกลุ่มสหวิชาชีพประกอบด้วยแพทย์ พยาบาล และครูนั้นอาจมีบทบาทสำคัญในการป้องกัน รักษา ภาวะฆ่าตัวตายในวัยรุ่น วัยรุ่นกลุ่มเสี่ยงเช่นผู้ป่วยจิตเวชต้องได้รับการดูแลติดตามอย่างใกล้ชิด เนื่องจากมีแนวโน้มในการทำร้ายตนเอง ภายหลังจำหน่ายออกจากโรงพยาบาล ควรพัฒนาแผนกลยุทธ์เพื่อช่วยป้องกันการฆ่าตัวตายในวัยรุ่นอย่างมีประสิทธิภาพ

สาขาวิชา...สาธารณสุขศาสตร์.....ลายมือชื่อนิสิต.....

ปีการศึกษา...2554.....ลายมือ อ.ที่ปรึกษาวิทยานิพนธ์หลัก.....

##5279131253 : MAJOR PUBLIC HEALTH
KEYWORDS : ADOLESCENTS/ SOCIO-DEMOGRAPHIC FACTORS/ MENTAL HEALTH/ SUBSTANCE ABUSE/ DEPRESSION/ SUICIDE

JAKCHAI TITTABUT: SITUATIONAL ANALYSIS OF ADOLESCENT SUICIDE IN CHAIPRAKARN DISTRICT, CHIANGMAI PROVINCE, THAILAND. ADVISORS ALESSIO PANZA,,MD,M.Com.H,DTM&H., 49 pp.

This study was conducted on the May – Aug 2011, reviewed the last 5 years information for all adolescent suicide cases of Chaiprakarn district (2006 - 2010), total 30 adolescent suicide cases, three were committers, another four attempters are not living in Chaiprakarn district at the time of study. The remaining 23 attempted suicide cases were included for answering a questionnaire on adolescents and parents' socio -demographic and behavioral factors, mental health history, depression evaluation with 9 questions and suicide evaluation test with 8 questions. An additional research method was the review of medical records of all suicide cases Licensed SPSS program version 17 was used to calculate descriptive analysis and Chi-Square test at significant level of 95% ($p < 0.05$)

The study has revealed prevalence of 13.3 of adolescent attempted and committed suicide of Chaiprakarn district, approximately closed to the adulthood suicide rate of Chiang Mai province 13.7 and Chaiprakarn district 14.9 in 2009, lower than the world rate of 16.0, but the suicide rate of 13.3 is higher than the Thai national rate 5.96 and target of 6.3 per 100,000 people.The age distribution ranges 12 to 19 years (mean15.74, SD1.98) with slight female predominance (56.5%). All adolescents are Buddhist and most go to temple or church as a practice of religion (65.2%). Significant difference between independent variables and adolescent intention to attempt suicide are non practice of religion of adolescents (Chi–Square15.836, p-value 0.015) and mothers (Chi–Square23.000, p-value 0.001), physically abused behavior to girlfriend / boyfriend (Chi–Square 42.475, p-value 0.001), alcohol use (Chi–Square 10.000, p-value 0.019), agreement with physician or nurse diagnosis of mental health problems(Chi–Square 11.291, p-value 0.504), and sexual orientation.(Chi–Square 23.000, p-value 0.001). Depression, one of independent variables has no significant difference with an adolescent intention to attempt suicide. Most of the study results are congruent with the conceptual framework of the study, certain mental health problems including depression and suicide might be underreported by the participants because of unsafe or non confidential research environment or psychiatric defense mechanism of denial since the respondants have already attempted suicide in the past. Missing data of suicide statistics in Chiang Mai provincial public health office might influenced other insignificant independent variables.

Multidisciplinary team, consisting of a physician, mental health nurse, and teacher working together with the community and the secondary schools might play a vital role in adolescent suicide prevention, treatment. Vulnerable adolescents such as psychiatric patients need to be closely monitored, as they are particularly prone to self-harm, after discharge from hospital. Strategies need to be developed to help this group of individuals effective prevention.

Field of Study:…Public Health….Student's Signature……

Academic Year:… 2009 ……. Advisor's Signature …….

ACKNOWLEDGEMENTS

To Dr. Alessio Panza, my advisor, the teacher who teach me more…

To Dr.Wattasit Siriwong, my teacher who teach me bright...

To Professor Dr.Sirikul Isaranuruk, my teacher who teach me delight…

To Assistant Professor Dr.Ratana Somrongthong, my teacher who teach me wise…

To adolescents and patients who teach me more patient…

To all my friends and coordinators, who teach me nobody can live alone…

To The Collage of Public Health Sciences, Chulalongkorn University….

CONTENTS

Page

Page

Page

Page

Page

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

ERCC - Ethical Review Committee for research Chulalongkorn University
MDD – Major Depressive Disorder
MOPH – Ministry of Public Health
WHO - World Health Organization

บันทึกข้อความ

ส่วนงาน คณะกรรมการพิจารณาจริยธรรมการวิจัยในคน กลุ่มสหสถาบัน ชุดที่ 1 โทร.0-2218-8147

ที่ ว2572/54 **วันที่** 25 สิงหาคม 2554

เรื่อง แจ้งผลผ่านการพิจารณาจริยธรรมการวิจัย

เรียน **คณบดีวิทยาลัยวิทยาศาสตร์สาธารณสุข**

สิ่งที่ส่งมาด้วย 1. ใบรับรองผลการพิจารณา
2. ข้อมูลสำหรับประชากรตัวอย่างหรือผู้มีส่วนร่วมในการวิจัย
3. ใบยินยอมของประชากรตัวอย่างหรือผู้มีส่วนร่วมในการวิจัย
4. แบบสอบถาม

ตามที่ **นายจักร์ชัย ดิตตะบุตร** นิสิตระดับมหาบัณฑิต วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย ได้เสนอโครงการวิจัยที่ 029.2/54 เรื่อง ปัจจัยที่สัมพันธ์กับภาวะฆ่าตัวตายของนักเรียนวัยรุ่นในอำเภอไชยปราการ จังหวัดเชียงใหม่ ประเทศไทย (FACTORS RELATED WITH ADOLESCENT STUDENTS SUICIDE IN CHAIPRAKARN DISTRICT, CHIANG MAI PROVINCE, THAILAND) เพื่อให้กรรมการผู้ทบทวนหลักพิจารณาจริยธรรมการวิจัยความละเอียดแล้วนั้น

การนี้ กรรมการผู้ทบทวนหลัก ได้เห็นสมควรให้ผ่านการพิจารณาจริยธรรมการวิจัยได้รับรองวันที่ 15 สิงหาคม 2554 โดยมีข้อสังเกต ดังนี้

แผนการดำเนินการวิจัย ข้อ 5 ควรปรับให้เป็นปัจจุบัน

จึงเรียนมาเพื่อโปรดทราบ

(ผู้ช่วยศาสตราจารย์ ดร.นันทรี ชัยชนะวงศาโรจน์)
กรรมการและเลขานุการ
คณะกรรมการพิจารณาจริยธรรมการวิจัยในคน
กลุ่มสหสถาบัน ชุดที่ 1 จุฬาลงกรณ์มหาวิทยาลัย

31/8/54

AF 01-12

คณะกรรมการพิจารณาจริยธรรมการวิจัยในคน กลุ่มสหสถาบัน ชุดที่ 1 จุฬาลงกรณ์มหาวิทยาลัย
อาคารสถาบัน 2 ชั้น 4 ซอยจุฬาลงกรณ์ 62 ถนนพญาไท เขตปทุมวัน กรุงเทพฯ 10330
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COA No. 131/2554

ใบรับรองโครงการวิจัย

โครงการวิจัยที่ 029.2/54 : ปัจจัยที่สัมพันธ์กับภาวะฆ่าตัวตายของนักเรียนวัยรุ่นในอำเภอไชยปราการ จังหวัดเชียงใหม่ ประเทศไทย

ผู้วิจัยหลัก : นายจักร์ชัย ติดตะบุตร

หน่วยงาน : วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย

คณะกรรมการพิจารณาจริยธรรมการวิจัยในคน กลุ่มสหสถาบัน ชุดที่ 1 จุฬาลงกรณ์มหาวิทยาลัย ได้พิจารณา โดยใช้หลัก ของ The International Conference on Harmonization – Good Clinical Practice (ICH-GCP) อนุมัติให้ดำเนินการศึกษาวิจัยเรื่องดังกล่าวได้

ลงนาม..... ลงนาม.....
(รองศาสตราจารย์ นายแพทย์ปรีดา ทัศนประดิษฐ) (ผู้ช่วยศาสตราจารย์ ดร.นันทรี ชัยชนะวงศาโรจน์)
ประธาน กรรมการและเลขานุการ

วันที่รับรอง : 15 สิงหาคม 2554 **วันหมดอายุ** : 14 สิงหาคม 2555

เอกสารที่คณะกรรมการรับรอง

1) โครงการวิจัย
2) ข้อมูลสำหรับกลุ่มประชากรหรือผู้มีส่วนร่วมในการวิจัยและใบยินยอมของกลุ่มประชากรหรือผู้มีส่วนร่วมในการวิจัย
3) ผู้วิจัย
4) แบบสอบถาม

เลขที่โครงการวิจัย 029.2/54
วันที่รับรอง 15 ส.ค. 2554
วันหมดอายุ 14 ส.ค. 2555

เงื่อนไข

1. ข้าพเจ้ารับทราบร่วมในการพิจารณาจริยธรรม หากดำเนินการเก็บข้อมูลการวิจัยก่อนได้รับการอนุมัติจากคณะกรรมการพิจารณาจริยธรรมการวิจัยฯ
2. หากใบรับรองโครงการวิจัยหมดอายุ การดำเนินการวิจัยต้องยุติ เมื่อต้องการต่ออายุต้องขออนุมัติใหม่ล่วงหน้าไม่ต่ำกว่า 1 เดือน พร้อมส่งรายงานความก้าวหน้าการวิจัย
3. ต้องดำเนินการวิจัยตามที่ระบุไว้ในโครงการวิจัยอย่างเคร่งครัด
4. ใช้เอกสารข้อมูลสำหรับกลุ่มประชากรหรือผู้มีส่วนร่วมในการวิจัย ใบยินยอมของกลุ่มประชากรหรือผู้มีส่วนร่วมในการวิจัย และเอกสารเชิญเข้าร่วมวิจัย (ถ้ามี) **เฉพาะที่ประทับตราคณะกรรมการท่านั้น**
5. หากเกิดเหตุการณ์ไม่พึงประสงค์ร้ายแรงในสถานที่เก็บข้อมูลที่ขออนุมัติจากคณะกรรมการ ต้องรายงานคณะกรรมการภายใน 5 วันทำการ
6. หากมีการปรับเปลี่ยนแปลงการดำเนินการวิจัย ให้ส่งคณะกรรมการพิจารณารับรองก่อนดำเนินการ
7. โครงการวิจัยไม่เกิน 1 ปี ส่งแบบรายงานสิ้นสุดโครงการวิจัย (AF 03-12) และบทคัดย่อผลการวิจัยภายใน 30 วัน เมื่อโครงการวิจัยเสร็จสิ้น สำหรับโครงการวิจัยที่เป็นวิทยานิพนธ์ให้ส่งบทคัดย่อผลการวิจัย ภายใน 30 วัน เมื่อโครงการวิจัยเสร็จสิ้น

ข้อมูลสำหรับกลุ่มประชากรหรือผู้มีส่วนร่วมในการวิจัย

(Patient / Participant Information Sheet)

ชื่อโครงการวิจัย การวิเคราะห์สถานการณ์ฆ่าตัวตายของวัยรุ่นในอำเภอไชยปราการ จังหวัดเชียงใหม่ ประเทศไทย

ผู้วิจัยหลัก นายจักร์ชัย ติตตะบุตร

สถานที่ติดต่อผู้วิจัย (ที่ทำงาน) โรงพยาบาลไชยปราการ ต.ศรีดงเย็น อ.ไชยปราการ จ.เชียงใหม่ 50320

(ที่บ้าน) บ้านพักเจ้าหน้าที่ โรงพยาบาลไชยปราการ ต.ศรีดงเย็น อ.ไชยปราการ จ.เชียงใหม่ 50320

โทรศัพท์ 053-871001, 081-9803690

1. ขอเรียนเชิญท่านเข้าร่วมการวิจัยก่อนที่ท่านจะตัดสินใจเข้าร่วมในการวิจัย มีความจำเป็นที่ท่านควรทำความเข้าใจว่างานวิจัยนี้ทำเพราะเหตุใด และเกี่ยวข้องกับอะไร กรุณาใช้เวลาในการอ่านข้อมูลต่อไปนี้อย่างละเอียดรอบคอบ และสอบถามข้อมูลเพิ่มเติมหรือข้อมูลที่ไม่ชัดเจนได้ตลอดเวลา
2. โครงการนี้เกี่ยวกับการวิเคราะห์สถานการณ์ฆ่าตัวตายของวัยรุ่นในอำเภอไชยปราการ จังหวัดเชียงใหม่ ประเทศไทย ในช่วงพุทธศักราช 2549 - 2554
3. วัตถุประสงค์ของการวิจัยโครงการนี้เกี่ยวกับการวิเคราะห์สถานการณ์ฆ่าตัวตายของวัยรุ่นในอำเภอไชยปราการ จังหวัดเชียงใหม่ ประเทศไทย ในช่วงพุทธศักราช 2549 - 2554
4. รายละเอียดของกลุ่มประชากรหรือผู้มีส่วนร่วมในการวิจัยครั้งนี้เป็นวัยรุ่นผู้ฆ่าตัวตายโดยมีช่วงอายุ 10 – 19 ปี ในอำเภอไชยปราการ จังหวัดเชียงใหม่ ประเทศไทย ในช่วงพุทธศักราช 2549 - 2554 โดยใช้นิยามของวัยรุ่นตามองค์การอนามัยโลก ในช่วงเวลาที่สัมภาษณ์วัยรุ่นผู้พยายามฆ่าตัวตายทุกคนมีอายุมากกว่า 15 ปี จำนวนผู้ฆ่าตัวตายทั้งหมดของอำเภอไชยปราการ 30 ราย ซึ่งมีผู้ฆ่าตัวตายสำเร็จ 2 ราย และผู้พยายามฆ่าตัวตาย 28 ราย

การวิจัยครั้งนี้เป็นการสัมภาษณ์วัยรุ่นผู้พยายามฆ่าตัวตายโดยตอบแบบสอบถาม มีรายละเอียดและขั้นตอนการดำเนินการวิจัยดังนี้

แบบสอบถามใช้ระยะเวลาทั้งหมดภายใน 1 ชั่วโมง โดยแบ่งเป็นสองส่วน คือ ส่วนที่1 และ ส่วนที่ 2

ส่วนที่ 1: คำถามไม่อ่อนไหวต่อความรู้สึก (Non sensitive questionnaires) ใช้เวลาประมาณ 30 นาที โดยแบ่งเป็น

A: ปัจจัยทางสังคมศาสตร์และพฤติกรรมของวัยรุ่นจำนวน 11 ข้อ ใช้เวลาประมาณ 15 นาที

B: ปัจจัยทางสังคมศาสตร์และพฤติกรรมของบิดามารดาหรือผู้ปกครองจำนวน9 ข้อ ใช้เวลาประมาณ 15 นาที

ส่วนที่ 2: คำถามซึ่งอ่อนไหวต่อความรู้สึก (Sensitive questionnaires) ใช้เวลาประมาณ 30 นาที โดยแบ่งเป็น

ประวัติทางสุขภาพจิต ใช้เวลาประมาณ 10 นาที

ความประพฤติผิดปกติ 5 ข้อ/การใช้สารเสพติด 2 ข้อ/การวินิจฉัยทางสุขภาพจิต 6 ข้อ

แบบประเมินโรคซึมเศร้าด้วย 9 คำถาม (9Q) 9 ข้อ ใช้เวลาประมาณ 10 นาที
แบบประเมินการฆ่าตัวตายด้วย 8 คำถาม (8Q) 8 ข้อ ใช้เวลาประมาณ 10 นาที

5. วิธีการศึกษาในผู้เข้าร่วม

พยาบาลวิชาชีพด้านสุขภาพจิตหนึ่งท่านของโรงพยาบาลไชยปราการ ได้รับการอบรมด้านการดูแลสุขภาพจิตชุมชนจากโรงพยาบาลศรีธัญญา หนึ่งในสถาบันมาตรฐานของไทยด้านการดูแลสุขภาพจิตชุมชนและจิตเวช การตอบแบบสอบถามนั้นกระทำที่ห้องประชุมรวมของโรงพยาบาลไชยปราการ ผู้วิจัยจะอธิบายถึงรายละเอียดการวิจัย จุดมุ่งหมายของการวิจัย ตลอดจนหลักการและวิธีเก็บรวบรวมข้อมูล

พยาบาลวิชาชีพด้านสุขภาพจิตชำนาญการจะอธิบายถึงวัตถุประสงค์ของการวิจัย การนำผลการศึกษาไปใช้ประโยชน์ตลอดจนหลักการและวิธีเก็บรวบรวมข้อมูล สิทธิที่จะบอกเลิกการเข้าร่วมในการวิจัยและเก็บรวบรวมใบยินยอมก่อนเริ่มกระบวนการกรอกข้อมูล ให้ทำการวิจัยนี้ อันตรายหรืออาการที่อาจเกิดขึ้นจากการวิจัย รวมทั้งประโยชน์ที่จะเกิดขึ้นจากการวิจัยอย่างละเอียด ผู้เข้าร่วมจะพิจารณาใบยินยอมด้วยความสมัครใจ และหากเบื้องต้นพบผู้เข้าร่วมไม่ตรงกับเกณฑ์นำเข้าของการศึกษาและจำเป็นต้องได้รับความช่วยเหลือหรือแนะนำ ผู้วิจัยจะให้ข้อควรปฏิบัติต่อบุคคลนั้น แบบสอบถามทั้งสองส่วนนั้นให้ผู้เข้าร่วมโดยสามารถแยกทั้งส่วนของคำถามซึ่งไม่เร้าอารมณ์ความรู้สึกและคำถามซึ่งเร้าอารมณ์ความรู้สึกออกจากกันได้ เมื่อผู้เข้าร่วมกรอกแบบสอบถามส่วนที่หนึ่งแล้วให้หย่อนลงในกล่องสำหรับคำถามซึ่งไม่เร้าอารมณ์ความรู้สึก จากนั้นเมื่อกรอกแบบสอบถามส่วนที่สองแล้วให้หย่อนลงในกล่องผนึกสำหรับคำถามซึ่งเร้าอารมณ์ความรู้สึกด้วยตัวของผู้เข้าร่วมเอง ดังนั้นจึงไม่มีผู้ใดสามารถเห็นคำตอบในส่วนคำถามซึ่งเร้าอารมณ์ความรู้สึกของผู้เข้าร่วม

พยาบาลวิชาชีพด้านสุขภาพจิตดำเนินการเก็บรวบรวมแบบสอบถามมาตรฐานนี้ และอยู่ตลอดระยะเวลากรอกแบบสอบถามเพื่อให้ความกระจ่างชัดแก่ผู้เข้าร่วมเมื่อผู้เข้าร่วมต้องการ และตรวจสอบมองหาภาวะอารมณ์ไม่สบายใจ ไม่พึงพอใจ หรือเครียดเพื่อปลอบประโลมจิตใจให้ผู้เข้าร่วมกรอกแบบสอบถามได้ลุล่วงไป หากผู้เข้าร่วมไม่ประสงค์กรอกแบบสอบถามต่อไป หากผู้เข้าร่วมสามารถหยุดและถอนตัวได้ทุกขณะที่ต้องการตามได้กล่าวไว้ในการพิจารณาทางจริยธรรมในการเข้าร่วมว่าเป็นไปด้วยตัวของผู้เข้าร่วมเอง โดยผู้เข้าร่วมมีสิทธิปฏิเสธและ/หรือถอนตัวจากการศึกษาได้ตลอดเวลาโดยไม่จำเป็นต้องให้เหตุผลใด และจะไม่ส่งผลกระทบต่อผู้เข้าร่วม การศึกษาจะไม่กระทบต่อการรับบริการทางสุขภาพของวัยรุ่นผู้เข้าร่วมและครอบครัว

หากผู้เข้าร่วมการวิจัยไม่สามารถเขียนหรือพูดภาษาหลักได้ พยาบาลวิชาชีพด้านสุขภาพจิตจะปฏิบัติตนเสมือนผู้ช่วยเหลือสำหรับการวิจัย หลังจากผู้เข้าร่วมทั้งหมดกรอกเสร็จสิ้นและออกไปจากห้อง พยาบาลวิชาชีพด้านสุขภาพจิตจะเปิดกล่องสองกล่องทั้งกล่องที่มีคำถามซึ่งไม่เร้าอารมณ์ความรู้สึกและคำถามซึ่งเร้าอารมณ์ความรู้สึกและเย็บด้วยลวดเย็บกระดาษเข้าด้วยกันตามลำดับหมายเลขผู้เข้าร่วมในแต่ละส่วน การเก็บข้อมูลระหว่างการศึกษาจะนำเสนอในรูปของจำนวนตัวเลขทั้งหมดโดยไม่ระบุเจาะจงถึงผู้เข้าร่วม

6. ผลที่คาดว่าจะได้รับ :ชาวชุมชนไชยปราการจะมีความเข้าใจถึงปัจจัยที่เกี่ยวข้อง ลดภาพลักษณ์ไม่ดีต่อตัวบุคคลและครอบครัวซึ่งมีประวัติฆ่าตัวตาย หากผู้เข้าร่วมได้รับอันตรายหรือความไม่พึงพอใจในการศึกษา ผู้วิจัยสามารถช่วยเหลือได้ทันที การศึกษานี้อาจส่งผลกระทบด้านเวลาและหรือความสะดวกสบายของผู้เข้าร่วม ทางผู้วิจัยคาดว่าผลการศึกษา สามารถนำไปปรับปรุงโครงการป้องกันการฆ่าตัวตายในวัยรุ่นชุมชนเพื่อป้องกันการฆ่าตัวตาย
7. หากท่านมีข้อสงสัยให้สอบถามเพิ่มเติมได้โดยสามารถติดต่อผู้วิจัยได้คือ นายจักร์ชัย ติดตะบุตร ได้ตลอดเวลาทางหมายเลขโทรศัพท์ และหากผู้วิจัยมีข้อมูลเพิ่มเติมที่เป็นประโยชน์หรือโทษเกี่ยวกับการวิจัย ผู้วิจัยจะแจ้งให้ท่านทราบอย่างรวดเร็ว เพื่อให้ผู้มีสวนร่วมในการวิจัยทบทวนว่ายังสมัครใจจะอยู่ในงานวิจัยต่อไปหรือไม่
8. ข้อมูลทุกอย่างของผู้มีส่วนร่วมในการวิจัยจะเก็บเป็นความลับ และจะทำลายแบบสอบถามหลังสิ้นสุดการวิจัย ผลการวิจัยจะรายงานในภาพรวม โดยไม่สามารถนำข้อมูลส่วนตัวใดๆไปใช้ในการระบุตัวท่านได้ ความไม่สบายใจ วิตกกังวล หรือระแวงอาจสอบถามเจ้าหน้าที่เป็นความลับโดยส่วนตัว ภายหลังกรอกแบบสอบถามเสร็จสิ้นทั้งหมด
9. ค่าตอบแทนยานพาหนะเดินทางสำหรับผู้เข้าร่วมทุกท่านมีค่า 300 บาท
10. หากท่านไม่ได้รับการดูแลดังระบุไว้ข้างต้น ท่านสามารถรายงานไปที่คณะกรรมการพิจารณาจริยธรรมการวิจัย ในคน กลุ่มสหสถาบัน ชุดที่ 1 จุฬาลงกรณ์มหาวิทยาลัย อาคารสถาบัน 2 ชั้น 4 ซอยจุฬาลงกรณ์ 62 ถนนพญาไท กรุงเทพ 10330 ประเทศไทย โทรศัพท์ 0-2218-8147 แฟกซ์ : 0-2218-8147 E-mail: eccu@chula.ac.th

เลขที่โครงการวิจัย 029.2/54
วันที่รับรอง 15 ส.ค. 2554
วันหมดอายุ 14 ส.ค. 2555

AF 03-11

หนังสือแสดงความยินยอมเข้าร่วมการวิจัย

ทำที่.....

วันที่.....เดือน.....พ.ศ. .....

เลขที่ ประชากรตัวอย่างหรือผู้มีส่วนร่วมในการวิจัย.....

ข้าพเจ้า ซึ่งได้ลงนามท้ายหนังสือนี้ ขอแสดงความยินยอมเข้าร่วมโครงการวิจัย

ชื่อโครงการวิจัย การวิเคราะห์สถานการณ์ภาวะฆ่าตัวตายของนักเรียนวัยรุ่น ในอำเภอไชยปราการ จังหวัดเชียงใหม่ ประเทศไทย

ชื่อผู้วิจัย นายจักร์ชัย ติตตะบุตร

ที่อยู่ที่ติดต่อ โรงพยาบาลไชยปราการ, อำเภอไชยปราการ จังหวัดเชียงใหม่

โทรศัพท์ (มือถือ) 053-871001

ข้าพเจ้า **ได้รับทราบ**รายละเอียดเกี่ยวกับที่มาและวัตถุประสงค์ในการทำวิจัย รายละเอียดขั้นตอนต่างๆ ที่จะต้องปฏิบัติหรือได้รับการปฏิบัติ ความเสี่ยง/อันตราย และประโยชน์ซึ่งจะเกิดขึ้นจากการวิจัยเรื่องนี้ โดยได้อ่านรายละเอียดในเอกสารชี้แจงผู้เข้าร่วมการวิจัยโดยตลอด และ**ได้รับคำอธิบาย**จากผู้วิจัย **จนเข้าใจเป็นอย่างดี**แล้ว

ข้าพเจ้าจึง**สมัครใจ**เข้าร่วมในโครงการวิจัยนี้ ตามที่ระบุไว้ในเอกสารชี้แจงผู้เข้าร่วมการวิจัย โดยข้าพเจ้ายินยอม ตอบแบบสอบถาม 33 ข้อ แบบประเมินโรคซึมเศร้า 9 ข้อ และแบบประเมินการฆ่าตัวตาย 8 ข้อ รวมระยะเวลา 1 ชั่วโมง

ข้าพเจ้ามี**สิทธิถอนตัว**ออกจากการวิจัยเมื่อใดก็ได้ตามความประสงค์ **โดยไม่ต้องแจ้งเหตุผล** ซึ่งการถอนตัวออกจากการวิจัยนั้น จะไม่มีผลกระทบในทางใดๆ ต่อข้าพเจ้าทั้งสิ้น

ข้าพเจ้าได้รับคำรับรองว่า ผู้วิจัยจะปฏิบัติต่อข้าพเจ้าตามข้อมูลที่ระบุไว้ในเอกสารชี้แจงผู้เข้าร่วมการวิจัย และข้อมูลใดๆ ที่เกี่ยวข้องกับข้าพเจ้า ผู้วิจัยจะเก็บรักษาเป็น**ความลับ** โดยจะนำเสนอข้อมูลการวิจัยเป็นภาพรวมเท่านั้น ไม่มีข้อมูลใดในการรายงานที่จะนำไปสู่การระบุตัวข้าพเจ้า

หากข้าพเจ้าไม่ได้รับการปฏิบัติตรงตามที่ได้ระบุไว้ในเอกสารชี้แจงผู้เข้าร่วมการวิจัย ข้าพเจ้าสามารถร้องเรียนได้ที่คณะกรรมการพิจารณาจริยธรรมการวิจัยในคน กลุ่มสหสถาบัน ชุดที่ 1 จุฬาลงกรณ์มหาวิทยาลัย ชั้น 4 อาคารสถาบัน 2 ซอยจุฬาลงกรณ์ 62 ถนนพญาไท เขตปทุมวัน กรุงเทพฯ 10330 โทรศัพท์ 0-2218-8147, 0-2218-8141 โทรสาร 0-2218-8147 **E-mail: eccu@chula.ac.th**

ข้าพเจ้าได้ลงลายมือชื่อไว้เป็นสำคัญต่อหน้าพยาน ทั้งนี้ข้าพเจ้าได้รับสำเนาเอกสารชี้แจงผู้เข้าร่วมการวิจัย และสำเนาหนังสือแสดงความยินยอมไว้แล้ว

ลงชื่อ.....
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ผู้มีส่วนร่วมในการวิจัย

ลงชื่อ.....
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พยาน

CHAPTER I

INTRODUCTION

1.1 Background

Throughout the world, about 2,000 people kill themselves each day. That is about 80 per hour, one every 40 seconds, three quarters of a million a year (Suicide Facts, 2010) and every completed suicide induces more than 20 suicide attempts among relatives or nearby persons. (Department of Mental Health, Thailand, 2010). Suicide is the serious problem on their own wording. Suicides are unwanted situations and the most severe crisis for a person who intend to end life to escape from the physical and psychological stress. (Department of Mental Health, Suicide Prevention Manual, 2000) Any person has the potential to become suicidal when confronted with a situation that produces emotional pain and is believed to be inescapable, interminable, and intolerable, especially the predisposing groups, include depressive disorders, psychosis, alcohol abuse, chronically ill, severe threatened disease, and socio-economic problem groups. Suicide is a complex phenomenon with psychological, social, biological, cultural and environmental factors involved(WHO, 2010).

Vast losses from suicide, treatment costs and psychological impacts affect suicide relatives or nearby persons. Moreover, each completed suicide can affect six nearby persons at least, if the suicide occurred in the school or the factory, this might impact one hundred persons. Suicide attempts leave complication, disability, or family mental health problems with socioeconomic loss (Manote, 2010).

Thailand Mental Health Department reported the recent national suicide rate by the bureau of health policy and strategy, ministry of public health in 2008 and 2009, completed suicide rates were 5.96 and 5.73 per 100,000 persons respectively, lower than the world rate of 16/100,000 persons. Thai MOPH recommended rate less than 6.3/100,000 persons as a target (Department of Mental Health, Community Mental Health, 2009).

Suicide and suicide attempt are still a major public health problem Thailand. Annually, approximately 4,500 – 5,500 individuals die, more than the criminal deaths of 3,300 – 3,800 individuals for each years, and 25,000 – 27,000 individuals each year for suicides and attempted suicides (Apichai, 2004). Report of Thailand's Burden of Disease in 2004 revealed the DALY loss from men suicide was ranked sixteenth at 107,000 Disability-Adjusted Life Year (DALY), (Bureau of Policy and Strategy, 2009).

Chiang Mai province also faces this tragedy. After Rayong it has the second highest suicide rate of completed suicide and attempted suicide in Thailand for the year 2009: 13.72 per 100,000, while the Thai national mean 5.72 (Suicidal risk person helping project, 2010). Chaiprakarn district is one of 25 districts of the Chiang Mai province with suicide rate of 14.91 per 100,000 in 2009 but with much higher rate in 2007 and 2008 at 20.31 and 32.30 respectively (Jakchai, 2010). Chaiprakarn's suicide ranks of the Chiangmai province are 15^{th} and 10^{th} for the year 2009 and 2010, respectively.

Suicide in adolescence

Adolescent or teen suicide is now one of the most vicious social problems in the world and Thailand. While being a teenager has always been difficult, more and more teens seem overwhelmed by a society which is increasingly violent and alienating. In a society that often favors shortcuts and quick fixes, teens often see suicide as an easy solution to their temporary problems. A breakdown in the traditional support mechanisms for teenagers and teens' own growing reliance on the media to confront and interpreting their own personal issues has created a dangerous distancing from reality for many teens. Adolescent suicide continue to be a serious problem. Teenagers faced by the feelings of stress, confusion, self-doubt, pressure to succeed, financial uncertainty, and other fears while growing up on the usual mankind mental development. For some teenagers, divorce, of a new family with step-parents and step-siblings formation, or experience to a new situation can be contribute more conflicts and suicide may be a proper solution to their problems and that situation (American Academy of Adolescent Psychiatry, 2008).

Determination of the suicide risk factors in adolescents may help design a protective implementation strategy with great benefits for individuals and the community (Department of Mental Health, 2000). Preventive strategy on suicide includes community awareness and understanding of suicide and its impact, co-ordination between health care workforce , local organizations, schools, religious groups, and elderly group.

1.2 Research Questions

(1) What are the prevalence of adolescents' intention to commit suicide and attempted suicide in Chaiprakarn district?
(2) What are the characteristics of adolescents' suicide in Chaiprakarn district?

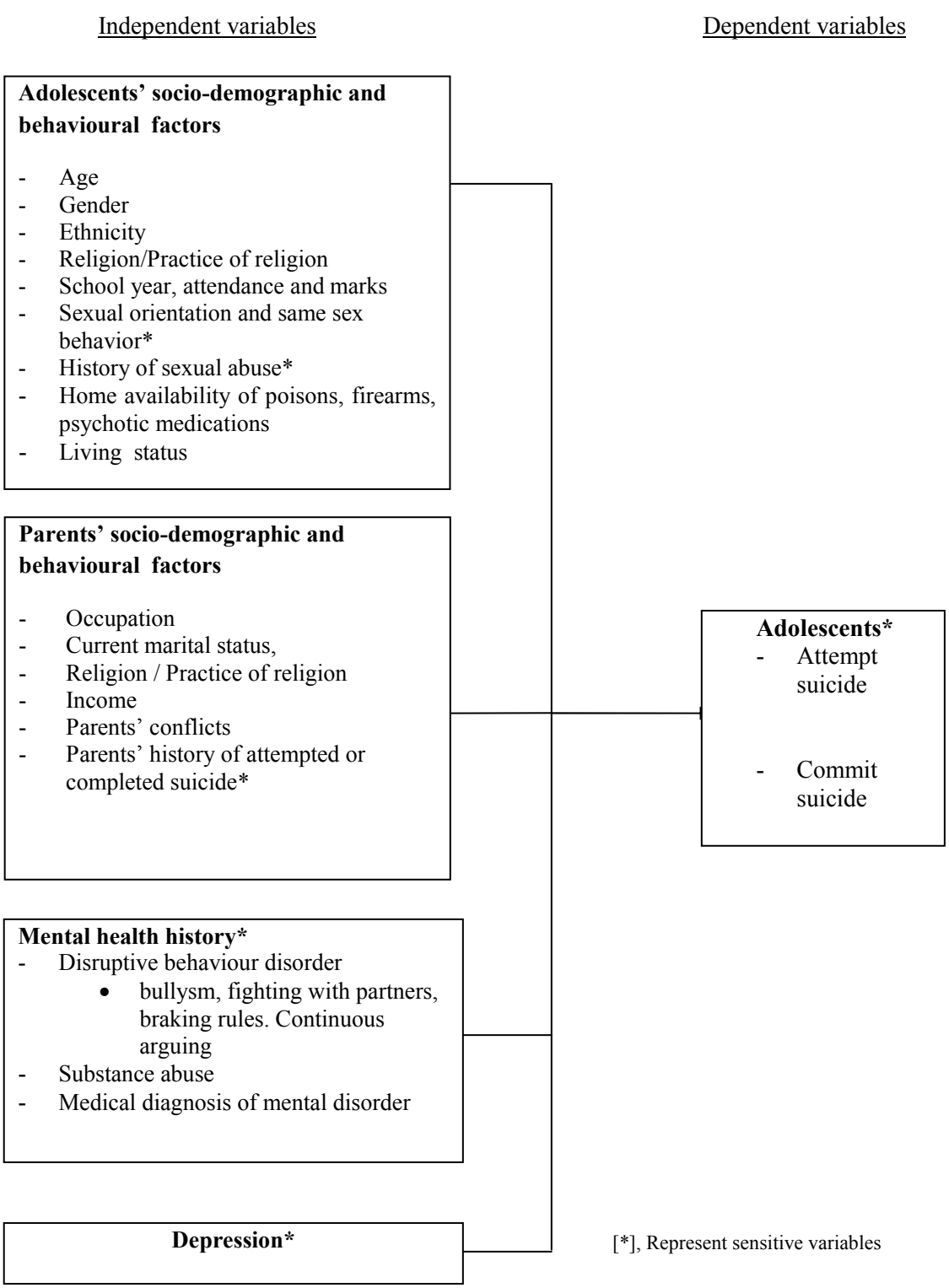
1.3 Objectives

(1) To determine the relationship of adolescents' socio-demographic and behavioral factors relate to adolescent attempted suicide.
(2) To determine the relationship of parents' socio-demographic and behavioral factors relate to adolescent attempted suicide.
(3) To determine the relationship of mental health history factors with adolescent attempted suicide.
(4) To determine the relationship of depression with adolescent attempted suicide.
(5) To determine the prevalence of adolescents' intention to commit suicide and attempted suicide in Chaiprakarn district.

1.4 Study Hypotheses

(1) There are relationships between adolescents' socio-demographic and behavioral factors relate to adolescent attempted suicide.
(2) There are relationships between parents' socio-demographic and behavioral factors relate to adolescent attempted suicide.
(3) There are relationships between mental health history factors and adolescent attempted suicide.
(4) There are relationships between depression with adolescent attempted suicide.

1.5 Conceptual Framework



1.6 Operational Definitions

In this study, the independent and dependent variables are defined as followed;

1.6.1 Independent Variables

A. Adolescent Socio-demographic and behavioral factors

- Age refers to how old the adolescent is at the time of suicide attempt, the age range is 11-19 years.
- Gender refers to male and female.
- Ethnicity refers to which ethnicity does the interviewee belongs to and it is classified into Thai, Chinese, and mountain ethnic minorities.
- Religion is a set of beliefs concerning the cause, nature, and purpose of life, such as Buddhist, Christ, and Muslim.
- Practice of religion refers to the activity to going to temple or church or mosque and take meditation and observe fasting according to their religion.
- School year refers to the educational status at the time of suicide attempt.
- School attendance refers to the frequency of students attending school, e.g.usual, occasional and seldom.
- School marks refers to students' classroom performance in the school by grading point average from 1.00 to 4.00.
- Sexual orientation refers to desire of having sexual involvement with a person of the same sex.
- Same sex behavior refers to having ever had practiced sexual activity with a person of the same sex.
- Sexual abuse refers to forcing of undesired sexual behavior by one person upon another.
- Home availability of poisons, firearms, psychotic medications means accessibility to means that can be use in suicide.
- Living status refer to adolescents are living alone, with parents, with friends, or with relatives at the time of suicide attempt.

B. Parents' socio-demographic and behavioral factors

- Parents' occupation refer to which occupation the adolescents' parents done.
- Parent marital status refers to married, single, and divorced.
- Biological parents are the man and woman who conceive a child also called birthparents.
- Adoptive parents refer to person assumes the parenting for another who is not kin and, in so doing, permanently transfers all rights and responsibilities from the original parent or parents.
- Step parents refer to the member of the couple to whom the child is not biologically related is the stepparent, specifically the stepmother or stepfather.
- Income refers to monthly income of the student family.
- Parents' conflicts refer to the student's parents ordinary action, being frequent quarrels, high emotional expression, substance or alcoholics, and feminine or child abuse.
- Parents' history of attempted or completed suicide refer to the presentation of previous suicide event of adolescent's parents.

C. Mental health history factor

Disruptive behavior disorder includes

- Oppositional Defiant Disorder where adolescents usually break the rules in the family and the school (e.g. defiance of the authority of parents, teachers and others, Failure to take responsibility for bad behavior or mistakes, looking for revenge and regular temper tantrums

- Conduct Disorder Behaviors where adolescents usually break the rules in the laws made by society. (e.g. behaviors that threaten or harm people, destroy property such as fire setting, stealing, bullying or lying to get something, school truancy and running away from home)
- Bullied by others at school refers to the student is being bullied by others at school or not.
- Substance use refers to students, will be asked their use of substance such as alcohol, cigarette, amphetamine and tinner.

D. Depression is refer to adolescents who have depression, will be tested with the 9 question (9Q).

1.6.2 Dependent Variables

- Suicide refer to the act of a human being intentionally causing his or her own death.
- Suicide intention refer to motives of adolescents to do suicide.
- Suicide plan refer to Looking for ways to attempt suicide. Seeking access to guns, pills, knives, or other objects that could be used in a suicide attempt.
- Attempt suicide refer to person who do not actually die by suicide.
- Complete suicide refer to person who do actually die by suicide.

Suicide trend can be categorized according to the suicide evaluation test with 8 questions (8Q), ask about the suicide ideation, thought, plans, attempt, and history by DSM-IV criteria.

The range of severity :	Interpretation
0	No trend for suicide
1 - 8	Minimal trend for suicide
9-16	Moderate trend for suicide
≥ 17	Marked trend for suicide, should be refered to the psychiatric hospital.

CHAPTER II

LITERATURE REVIEW

2.1 Definition

Suicide is the taking of one's own life (Dorland Medical Dictionary, 2007) or the act or an instance of intentionally killing oneself. (The American Heritage Medical dictionary, 2007) or the ruin or destruction of one's own interests (Mosby's Medical Dictionary, 2009), derived from the latin word for "self murder" (Benjamin , 2010). Suicide was derived from Lati root, *sui,* of oneself, and *caedere,* to kill (Mosby's Medical Dictionary, 2009). It represent a fatal act of the person's wish to die. Some persons have ideas of suicide that they will never act on; some plan for days, weeks, or even years before acting: and others take their lives seemingly on impulse, without premeditation. (Benjamin, 2010) Suicide is the act of a human being intentionally causing his or her own death. Suicide is often committed out of despair, or attributed to some underlying mental disorder which includes depression, bipolar disorder, schizophrenia, alcoholism and drug abuse. (K. Hawton, 2009). Interpersonal difficulties may play a pivotal role in the development of suicidal behavior (Jeffrey, 2002)

2.2 Epidemiology

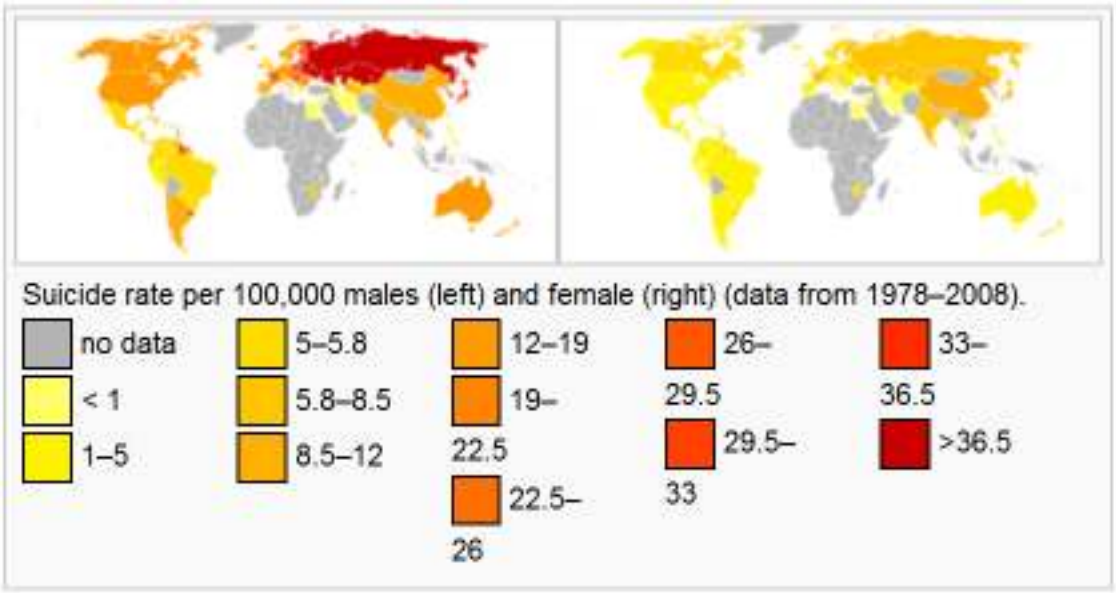


Figure 1: Global suicide rate (Gambotto, 2003)

Suicide is the tenth leading cause of death worldwide, about a million people dying by suicide annually (WHO, 2006). Worldwide suicide rates have increased by 60% in the second half of the present century, mainly in the developing countries (WHO, 2008). According to 2009 data, suicide rate in Thailand was 5.96/100,000 , and decreasing to 5.73/100,000 in 2010. Goldsmith SK (2006) reported 3,634 commit suicide 10 commit suicide a day average. Incidence of suicide is under-reported due to either religious and social barriers, and possibly completely unreported in some areas (Hawton K, 2009).

The first three provinces with highest suicide rate in Thailand are Rayong, Chiangmai, and Lamphun respectively (Suicidal risk persom helping project, 2010), whilst global suicide rate was 16/100,000. WHO – 2009 criteria for suicide rate severity for the low risk group, the moderate risk group and the high rate group are less than 6.5/100,000 , 6.5 - 13/100,000 , and more than 13/100,000. Thailand mental health department have continuous approving for suicide issue since the Tom-Yam-Kung economic crisis in Thailand which the suicide rate was highest for 8.6/100,000 . Eventhough, Japan, Srilanka, Sweden, and U.S.perceived a high suicide rate for 24.1/100,000 , 21.6/100,000 , 13.5/100,000 and 10.5/100,000 (Department of Mental Health, 2010).

About a million, Thai teens are confronted with the stressful situation, the late adolescent age group attempt suicide for 7,800 (21 average person/day) and can be committed suicide for 800 each year (2average person/day), (Department of Mental Health, Thailand, 2010) Teenagers attempt suicide roughly 10 times more frequently than adults, although their fatality rate of 11.1/100,000 people is about the same as adults. This is the third leading cause of death among 15-19 year-olds. For this age group, there were 5,174 motor-vehicle deaths in 1994, compared to 1,948 suicides. About four times more girls than boys make suicide attempts, but boys are much more likely to die: about 11% of (reported) males' attempts were fatal, compared to 0.1% of females', a ratio of more than 100:1. This also gives a ballpark average of about 50 attempts for every fatality in this age group. This low fatality rate might be taken to mean that most of these adolescents don't want to kill themselves (true) and that there is generally one or more "warning" attempts before a lethal one (not true). This suggests that many of these lethal first-time-attempters intended to die. (Suicide Facts 2010)

2.3 Risk Factors For Teenage Suicide:

2.3.1 Mental Illness

Mental disorders are frequently present at the time of suicide with estimates from 87% (Arsenault, 2004**)** to 98% (Bertolote, 2004). Psychiatric person have more suicide risk , outpatient person perceived suicide risk for 3 -4 times, and rise to 10 times for inpatient psychiatric person. The suicide risk is highest in the first week of psychiatric admission, returnig as smilar as the general population after 3-5 weeks , again, the suicide risk increased after discharge for 3 months. The main risk groups are patients with depressive disorders, schizophrenia, and alcohol and other substance abuse (Benjamin, 2010).

Depressive disorders, Adolescent depression is associated with risks of adult suicidality and persistent interpersonal difficulties (Eric, 2001), most of them commit suicide in the early phase of treatment. Male depressive person predominant to female, the suicide risk enhanced with social isolation, bereavement. One-third of depressive adolescents commit suicide without predisposing factors (Denise, 2010).

Schizophrenia, most of person who commit suicide of the schizophrenia group are in the first few years of the onset which typically in adolescece and early adulthood, thus suicide risks for this mental health illness are young age, male gender, single marital status, preveious suicide attempt, a vulnerability to a depresssive symptoms, and a recent hospital discharge. (Benjamin, 2010)

Personalty disorders or difficulty may be a determinant of suicide behavior in several ways, by predisposing a major psychiatric such as depressive disorders or schizophrenia, by leading to the

difficulties for social adjustment relationship, by precipitating undeairable life events, and by impairing the coping skills (Benjamin, 2010) .

Previous suicide behavior or attempt are suppoted by some study that a patient is at increasd the suicide risk (Thai Health Promotion Foundation, 2010).

2.3.2 Substance Abuse and Alcohol Use

Substance abuse is the second leading cause of suicide after mood disorders (Frank , 2001). More than 50% of suicides are related to substance or alcohol misuse. Up to 25% of drug addicts and alcoholics commit suicide. substance or alcohol misuse affect adolescent suicides up to 70%. 13 – 42 % of attempt suicide adolescents are alcoholics and use alcohol or substance in the time of suicide for 5-11 % (Thai Health Promotion Foundation, 2010). Chronic benzodiazepine use is associated with depression as well as suicide. Methamphetamine use also has a high association with depression and suicide (Miller, 2001).

2.3.3 Biological Factor

Genetics has an effect on suicide risk (Brezo, 2008) accounting for 30–50%. Although 9 by 10 of commit suicides have any other one of psychiatric illness, there are genetic factor related in suicide which affect the brain chemicals for specific psychiatric illness, like depressive disorders and alcoholics (Benjamin, 2010).

2.3.4 Religion

Practice of religion has been linked to reduced suicide among adolescents. For instance the low rates among African Americans have been attributed to a greater emphasis on religion in African American families.(Spirito, 2006). According to a recent study (Kanita, 2004) Religiously unaffiliated subjects had significantly more lifetime suicide attempts and more first-degree relatives who committed suicide than subjects who endorsed a religious affiliation. Furthermore, subjects with no religious affiliation perceived fewer reasons for living, particularly fewer moral objections to suicide. In terms of clinical characteristics, religiously unaffiliated subjects had more lifetime impulsivity, aggression, and past substance use disorder. After other factors were controlled, it was found that greater moral objections to suicide and lower aggression level in religiously affiliated subjects may function as protective factors against suicide attempts. Religious affiliation may offer new therapeutic strategies in suicide prevention.

2.3.5 Socio-economic Factor

Unemployment, poverty, discrimination, homelessness, disruptive relationship conflicts and unsupportive family background may impair social adjustment and coping skills, leading to an inappropriate quality of life, contributing the suicidal thoughts (Qin, 2003).

2.3.6 Family Factor

In a USA study of 146 adolescent friends of 26 adolescent suicide victims, teens living in single-parent families are not only more likely to commit suicide but also more likely to suffer from psychological disorders, when compared to teens living in intact families (Brent, 1995).
In USA study of 226 female latin teenagers, it has found that parent-adolescent conflict is a risk factor for suicide attempts and reducing parent-daughter conflict and fostering closer family ties has

the added effect of improving self-esteem and shrinking the likelihood of suicide attempts Kuhlberg (2003) note that low cohesion, high conflict, and unsatisfying parent adolescent relationships are more frequently seen in the families of adolescents who attempt and complete suicide than in controls. A registry study in Denmark determined that, after controlling for parental psychiatric disorders and other related historical factors, adolescent suicide was more likely if the adolescent's parent died by suicide—about fivefold for a maternal suicide and twofold for a paternal suicide (Agerbo, 2002). Gould (1996) found that suicide victims were more likely than controls to have had a mother with a history of mood disorder symptoms, a father with a history of legal troubles, and a family history of suicidal behavior. In another study, Brent (1993) found that parental depression increased the risk of an adolescent's suicide, even after controlling for the adolescent's depression.

2.3.7 Sexual Orientation

Study on the young homosexuals is somewhat unreliable, about one – third teen aged suicides is by a gay or lesbian. Since homosexuals represent only about 5% of the population, gays and lesbians are greatly over-represented (Facts about suicide 2010). Gay, lesbian, and bisexual (GLB) youths often have unique internal and interpersonal stresses—including parental rejection, peer isolation, and victimization—that may lead to suicidality (McDaniel, 2001). Rates of adolescent suicide attempts appear to be higher among GLB youths than heterosexual youths, but completed suicide is comparable across GLB and heterosexual youths (McDaniel, 2001). Remafedi (1998) cite eight peer-reviewed studies that found attempted suicide rates ranging from 20% to 42%. A recent review of the literature concluded that GLB youths have a rate of suicidal behavior two to six times greater than that of heterosexual youths (McDaniel, x2001).In the Brent (2002) study, a history of sexual abuse and impulsive aggression in both the parent and adolescent increased the risk of an adolescent's attempt.

2.3.8 Gender Difference

Male commit suicide more than four times as women with higher rate of complete suicide related to their suicide methods such as firearm shot, hanging, and jumping from a height, while women attempt suicide four time as men, which commonly take overdose psychotic agent use or poison use.

2.3.9 Occupation

Higher and lower personal's social status perceived greater risk of suicide, The economic recession also increase suicide rate.

2.4 Disruptive behaviour

Beautrais (1996) found that adolescents and young adults with a diagnosis of conduct or antisocial personality disorder were 4.4 times more likely to have serious suicide attempt. Gould (1998) did not find an independent contribution of disruptive behavior disorder to suicide attempts. Aggressiveness, however, was a significant predictor of suicidal ideation, even after controlling for the presence of a psychiatric disorder.

2.5 Adolescent Developmental Aspects

Adolescent is the transitional period of the childhood and adulthood which developing adolescent biological, psychological and social aspects for the adulthood role. Puberty is the biological development, especially the physical and sexual maturation change after the maturation of the hypothalamus-pituitary-adrenal-gonadal-axis. Adolescent usually occur with the puberty, but

no need for the same period. Adolescent represent the psychological change and puberty represent the secondary sexual characteristics change. The major developmental tasks for adolescents are

- Separation from parents commensurate with being able to decide the course of one's own life.
- Attainment of a stable sexual identity.
- Ability to form a long-term sexual relationship.
- Attainment of a steady job or the preparation for a career.
- Attainment of a personal value system that respects both the needs of the self and the needs of others.

Psychosocial development according to Erik Erikson belief human being must finished each problem steps with resolution of the internal crisis. Either internal factor such as psychological and external factors such as social, cultural, and traditional are affected the human development . Adolescent is in the fifth step of the psychosocial development theory, which internal crisis is to identity versus role diffusion. Sense of identity is vital to know what are they be, and how the life would be for the future. Developmental success upon the previous succeed stages such as basic trust, autonomy, initiative. Identity crisis is the ordinary and usual event, struggle of this stage contribute the " *identity diffusion or role confusion*" that not preserved the sense of self and uncertainty of their role as a member in a society, the identity failure expressed by various problematic behaviors like running away (Sirichai 2010).

2.6 Classification of different levels of suicide. (Merriam, 2010)

2.6.1 Self-harm : Persons harmed themself with primary intention, to relieve unbearable emotions, but not a critical event.

2.6.2 Euthanasia and assisted suicide (mercy killing) : Physician allowed to assisted person who wish to end his life. Assisted suicide is a borderline criticism in moral and political issue in many countries

2.6.3 Murder–suicide : An act in which an individual kills one or more other persons immediately before or at the same time as him or herself.

2.6.4 Suicide attack : Occur when an attacker perpetrates an act of violence against others, typically to achieve a military or political goal, that results in his or her own death.

2.6.5 Mass suicide : suicides under the peer pressure or as a group, which a larger number of people kill themselves together for the same ideological reason, often within a religious, political, military or paramilitary context.

2.5.6 Suicide pack : Suicides of small groups of people (such as married or romantic partners, family members, or friends) whose in an agreed-upon plan

2.6.7 Parasuicide : is most common in adolescents and young adults. .(Department of Mental Health, 2000) Suicide attempts or gestures with no actual intention to die, about half of those who commit suicide have a history of parasuicide, (Department of Mental Health, Thailand, 2010), thus parasuicide is a significant predictor of completed suicide. (National health security office, 2010)

2.6.8 Suicidal gestures : Remained traces or wounds after parasuicide or self-harm was done, frequently act under the feeling of separation or alone, usually found on the forearm.

2.6.9 Suicide survivors : One who lost their close relatives or friends after in suicide(Benjamin, 2010) , survivors of suicide often struggle with feelings of guilt and shame as well.

2.6.10 Altruistic or heroic suicide : Person who voluntary die for the good or the will of the group.

2.6.11 Religious suicide : One of a mass suicide, especially related to the religion ideology.

2.6.12 Romantic suicide : people who have lived together for like a lover and intent to die follow the dead of their love.

2.6.13 Anniversary suicide : is characterized by use of the same method or date as a dead loved one, usually a family member. "Imitative" suicide is similar to anniversary suicide in its focus on the dead, but uses a different date and method.

2.6.14 Contagion suicide, cluster suicide, or copycat suicides: This is where one suicide seems to be the trigger for others, and includes "cluster" and "copycat" suicides, most often among adolescents. (Suicide Facts, 2010)

2.7 Suicide Prevention

Adolescents are identified as being at risk, early detection of warning signs of suicide is proper for suicide prevention (Goldsmith, 2010). Many researches revealed that suicide cases in elderly and women had visited a primary care provider in the year before death, promotion of primary-care providers' ability to recognize and treat risk factors may help in suicide prevention. protective factors such as social support and connectedness and environmental risk factors such as access to lethal means, play an important roles in suicide prevention (Suicide Prevention Resource Center, 2008).

Iris (2001) concluded the that national samples of black, hispanic, and white youth, unique and cross-cutting factors derived from a resiliency framework protected factor for attempting suicide. In addition to risk reduction, promotion of protective factors may contribute to improvement of the primary and secondary prevention of adolescent suicide behavior. Garland (1993) recommend supporting for integrated primary prevention such as suicide prevention education for professional, education and policies on firearm management, education for the media about adolescent suicide, more efficient identification and treatment of high risk adolescents, crisis intervention, and treatment for suicide attempters. Goldsmith (2002) suggest the Universal, Selective, and Indicated (USI) prevention model for the interdisciplinary field of prevention science in attention on everyone in the population, specific at-risk groups, and specific high-risk individuals respectively.

The universal prevention promote protective factors against suicide including: self-efficacy, interpersonal problem solving, self- esteem, and social support

The selective prevention initiatives at the selective level include: (1) screening programs to identify and assess at-risk groups; (2) gatekeeper training, consultation, and education services; (3) support/skills training; and (4) crisis response and referral resources.

The Indicated prevention are: (1) family support training; (2) skill-building support groups for high-risk individuals; (3) case management/alternative programming; and (4) referral resources for crisis intervention/treatment.

2.8 Prevention strategies

1. Suicide prevention awareness and education for staff, parents and adults in the community
2. Health promotion and prevention programs for all adolescents.
3. Prevention programs and services for groups of students, and individual students at risk .

2.9 Thailand suicide preventive policies (Department of Mental Health, 2009)

Before the economic crisis, also called Tom–Yam– Kung crisis on the 1997, the committed suicide rate estimated 5 – 6 per 100,000. After the crisis for two years, Thailand suicide rate was rising dramatically for 8.6 per 100,000 , the highest quantity since the previous suicide data collection, rising up for 2,000 persons.

In 2001, Department of Mental Health present the project of caring for depressive and suicide risk person, composited only 12 provinces at the first time, and diverged for all 76 provinces coverage in 2005. The early phase of the policy, the majority tasks involved the developing of technological and clinical practice guideline for health care officers, setting suicide risk care system and provincially implemented , and epidemiologic studying of the Thai population suicide database. Since 2004 the project of caring for depressive and suicide risk person concentrate into the three strategies, including :

- Implementing the population for suicide recognition, acceptance, and able to find the suicide helping sources.
- Developing suicide care team abilities, either inside or outside the public health system network.

Expected outcomes (National health security office, 2010):

1. National commit suicide rate less than 6.5/100,000
2. 80% of attempters receive screening, surveillance, medical care until they can be living with norm in the society.
3. Repeated suicide cases decrease from the previous 10 %.
4. There are continuous working groups of mental health rehabilitation for suicide relatives.
5. There are effective database (GIS form) on suicide.

2.10 Psychiatric patient health care system budget (National health security office, 2010)

The National Health Security Office committee of Thailand represented the 5th conference on 10th May 2010 about the development of health care system for psychiatric patient to getting more service access, including psychiatric rehabilitation in the community joining with the family, community, and society according to the mental health act 2008. The budget for development of health care system for psychiatric patient value 17,000,000 Baht.

2.11 Continuous knowledge management of suicide (Department of Mental Health, 2009)

The overall picture of the project since 2004 – 2008 reveal a decremental trends for committed suicide, 6.9, 6.3, 5.7, and slightly increase 5.9 per 100,000 for the year 2005, 2006, 2007, and 2008 respective. Noticed that the suicide attempt rates are slightly reduced 41.1 per 100,000 for the year 2004, 27.9 per 100,000 for the year 2006, 36.4 per 100,000 for the year 2006, 30.4 per 100,000 for the year 2007 and 37.0 per 100,000 for the year 2008, this might be inferred eventhough the suicide attempt rate were slightly reduced, the referral and care for this population group was effective, result in decremental commit suicides and commit suicide trends. Screening and surveillance for the community risk group also another merit. The future policy should be based on

the active strategies of the community, promoting recognition and beliefs of suicide are the community problem, community should participate the screening for suicide and bring them into the mental health care hierarchy.

Epidemiologic studies of self- harm in 2007 – 2008 found female predominant, most in the periods of 20 – 29 years, 10 – 19 years, and 30 – 39 years respective, married, worked as labors or farmer. 32 % of the suicide attempters have underlying disease, diabetes, psychiatric disorders, hypertension, chronic headache and arthralgia, low back pain, and knee osteoarthritis respective. The frequent self-suicide attempt methods are taking drug overdose, chemical ingestion, hanging, knifing, but hanging is the most effective method in committed suicide. Family argument is the most cause of suicide attempt, dissatisfy and jealousy are the minor. Case control study in 2007 revealed the self- harm factors, problematic relationship with the closer had more 14.8 risk ratio, psychiatric illness perceived 4.4 risk ratio, and blame or tattle one month before perceived the 3.8 risk ratio are being member of the community group (protect for two times as compare with the case group) and every one point increment for the reason for living score help suicide protection 1.7 times. Some considerations represent almost annual committed suicide statistics are continuously increasing especially in the northern, whereas the gross national statistics are decline.

Coordination study in 2008 from the Lam-Phun public health office, Chiang Mai university, and the mental health department found the social and traditional relation like rumor and dignity affect the suicide. Manote(2002) revealed suicide rate in the upper northern Thailand was found to be considerably high. Therefore, suicide prevention programs should be given priority in this region, particularly in Chiang Mai and Lampoon provinces.

2.12 Adolescent suicide situation of Chaiprakarn district (Jakchai, 2010)

The adolescent suicide data was completely collected for all cases for two reasons, first the small community and the newer district just for 20 years according to the political aspect, and suicide phenomenon is more interesting events for the community, feasible for data accessibility. Second, adolescent suicide cases were generally enforced by the law and reported directly from the regional political organization to the mental health department of Chaiprakarn hospital. Since 2006 to 2010, there were 30 suicide cases by 28 attempters and 2 committers. Gender difference were slight female predominate 16 cases (53.3%). Suicide range were 12-19 years (Mean 16.17 years, SD 2.03). Thai ethnicity was account for the most number for suicide 24 cases (80%), Hilltribe ethnics and Chinese migrants were 4 case (13%) and 2 case (7%) respectively. The problems due to mental health and substances before suicide categorized as 3 cases of psychosomatic disorders (10%), , 3 cases of substance abuses (10%), 1 cases of psychiatric disorders (4%), 1 cases of previous suicide attempt (4%) and the rest 22 cases (73%) were no prodrome or warning signs before suicide. The problems due to mental health and substances after suicide categorized as 3 cases of repeated suicide (10%),2 cases of psychiatric disorders (7%), each one cases (3%) for substance abuses, psychosomatic disorders, and HIV infection. The rest 22 cases (73%) were no problem identified after suicide. Determination of the cause of suicide, quarrel with parents were 8 cases (27%), quarrel with couple were 6 cases (20%), quarrel with nearby person were 2 cases (7%), each one case (3%) for failed school performance and loneliness, the remaining 12 cases (40%) were not identified cause. Determination of the suicide methods, drug overdose was the most for 19 cases (63%), herbicide or pesticide ingestion were 5 cases (17%), chemical ingestion such as corrosive agents, detergent were 4 cases (13%), and 2

cases (7%) of hanging. The occupational status of suicides were 21 cases (70%) of secondary school student, 7cases (23%) of hirer ,i.e. person who been hired for general non-skilled task such as gardener, labour, launder, and so forth, and each one cases (3%) for university student and military servant. The modes of date of the month of suicide action were 12th and 17th and mode of the month of suicide action were the March. The sequential order of suicide each years were 11 cases (36.7%) of 2007, 8 cases (26.7%) of 2006, 4 cases (13.3%) of 2008 and 2009, and 3 cases(10%) of 2010.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Design

This study is cross-sectional descriptive and also analytical in nature.

3.2 Study Area

Chiangmai province. Chaiprakarn district was selected purposively due to continuous rising of suicide rate (20.31, 32.30, and 14.91 per 100,000 for the year 2007, 2008, and 2009), (Jakchai, 2010).

3.3 Study Population

The study population are adolescent who had attempted suicide in Chaiprakarn district, Chiangmai province, Thailand, since 2006 – 2010. Adolescents are defined by WHO as young people 10-19 years old, for this study in the times of interview adolescent suicide cases who had attempted suicide are all above the age of 15year old and this age group could decide to participate to a study and answering questionnaire without parental consent (see section 3.11 examination.).

3.3.1 Inclusion criteria of the subjects are

A) Adolescent attempt suicide cases in Chaiprakarn district

B) Willing to participate the study and signing consent after study objectives are explained.

3.3.2 Exclusion Criteria

A) Adolescent attempt suicide cases who below the age of 15 and above the age of 19 on the participating time.

B) Have participatory obstacles**,** such as sick on the day of the interview or living in another place outside the Chaiprakarn district.

3.4 Population Size

All of suicide cases, wherever are coordinated for different level of the public sectors (community police office, district administration office, and hospital) regarding to the forensic law enforcement, thus no missing cases are found. There are total 30 adolescent suicide cases of Chaiprakarn district, 28 cases of all thirties are attempters and two cases of committers. Five of the 28 cases did not meet the inclusion criteria leaving 23 attermpters for this study.

3.5 Measurement Tools

A) Medical records reviewing from all suicide cases.

B) Structured self- administered questionnaire in Thai language investigating**:**

A.Independent Variables

These variables were developed from a review of related theories, concepts and research. The independent variables are grouped into four sections: 1. Adolescents' socio-demographic and behavioral factors, 2. Parents' socio-demographic and behavioral factors, 3, Mental health history and 4. Depression (this section is using the Thai Ministry of Health, MOPH, '9Q questionnaire' for depression). The range of severity : Score interpretation as

0 – 6	No depression
7 - 12	Mild depression
13 – 18	Moderate depression
> 19	Severe depression

B.Dependent Variables

Adolescence suicide is measured by using the Thai Ministry of Health '8Q questionnaire' for suicide, suicide evaluation test with 8 questions (8Q) Ask about the suicide ideation, thought, plans, attempt histories. The range of severity interpreted as

0	no trend for suicide
1-8	as minimal trend for suicide
9-16	as moderate trend for suicide
>17	as marked trend for suicide, should be refer to the psychiatric hospital.

Sensitive questions according to the sensitive variables in the conceptual framework had asked in the last page of the questionnaire. This page had been marked with the same sequential number of the main questionnaire. To make it possible to link sensitive question section with the non sensitive section of the questionnaire .

The English version of the questionnaire in Appendix B was translated into Thai by a proficient English-Thai translator and , then, translated back into English by a second translator. In case of differences in the two translations a third translator agreed the final translation together with the first two translators. The same quality control translation process was applied for appendix B section 2 depression evaluation test, and section 3 suicide evaluation test that are originally available in Thai language.

3.6 Validity of the questionnaire

Section A, B and C of the questionnaire were validated by consulting three experts in the field of adolescent suicide in Thailand. Questionnaire section 2, the '9Q questionnaire' for depression and section 3 , the '8Q questionnaire' for suicide, have already been validated because they are standardized questionnaires routinely used by the MOPH for mental health research in Thailand since 2004.

3.7 Data Collection

The researcher described the research details principle, aims, and data collection methods to the assitant researcher. The latter one was the mental health registered nurse of Chaiprakarn hospital, trained an approved for community mental health care by Srithanya hospital, one of a standard mental health and psychiatric care centers in Thailand. Prior to starting the filling in of the questionnaire , the mental health registered nurse , experienced in conducting mental health research, explained the objectives of the research, the utilization of the results, the right of non- participating to the research and collected the signed consent .The mental health registered nurse also explained the last part of the questionnaire with sensitive questions on sex, drug, mental or behavior disorders, Depression evaluation test with 9 questions (9Q), and Suicide evaluation test with 8 questions (8Q)..

The mental health registered nurse collected the filled in questionnaires, and stayed close to the respondents during the filling in of the questionnaires to provide clarifications to subjects and their parent as required, in particular to deal with uncomfortabe stressful emotions of the participants in answering the questionnaire. The nurse also had instructions to refer the more stressed cases to the mental health specialist in the community hospital.

After all of the participants finished the questionnaires the nurse checked the completeness of the non sensitve section of the questionnarie only then asked particpants to insert this section of the questionnarie in the first locked box. The nurse did not check the

sensitive questions of the questionnare but only made sure that all particpants inserted the sensitive section of the questionnare in the second locked box.

The participants answered the self – administred questionnaires for two sections,, with each section carrying a unique identfying number. Section 1 for non sensitive questions, categorized into two parts, part A, 11 questions about adolescent socio-demographic and behavioral factors, part B, 9 questions about parents' socio-demographic and behavioral factors. Section 2 for sensitive questions categorized into three parts, part A, Mental health history, with 5 questions about disruptive behavior disorders, 2 questions about substance abuse, and 6 questions about previous medical diagnosis of mental disorder. Part B, answering 9 questions with Depression evaluation test (9Q), and part C, answering 8 questions with Suicide evaluation test (8Q). Completing all total 40 questions required about one hour . Participants put the filled in section 1of the questionnaire in the first locked box for non sensitive questionnaires, and the filled in section in the second locked box for sensitive questionnaires, thus nobody saw the answers to the sensitive questions till the boxex were opened and the answers anlaysed. All participants had numeric coding instead of the true name to keep the participants' anonymity . Any participant who did not want to continue filling in the questionnaire, could stop and withdraw anytime as stated in the ethical considerations section

Questionnaires were completed at the Chaiprakarn meeting hall

Three hundred baht were given to every participants as travelling budget.

3.8 Data Analysis The researcher used SPSS version 17 to organize and analyze data.

A) Descriptive Analysis

Frequency distribution, percentage distribution, median, mean mode were use to organize data of independent and dependent variables.

B) Inferential Analysis

The relationships between the independent variables and dependent variables had applied the SPSS program version 17, and analyzed Chi-square test for the difference, the p - value of 0.05 was considered statistically significant for each analysis that was conducted.

3.9 Ethical Consideration

The study had no commercial purpose. The questionnaires were anonymous; information collected during the study was presented as total numbers without identification of living place address.

A few questions about sensitive questions might have led participants to feel uncomfortable but they were not obliged to answer questions if they did not want to. The answers for sensitive questions were in a separate part of the questionnaire that was not checked by the mental health registered nurse. This assured anonymity of the responses, but anonymity did not allow the mental health registered nurse to refer those subjects with sexual or drug problems or still at risk of suicide for counseling. Therefore all participants before starting filkling in the questionnaire were invited to express their feelings eihter during the fillling in of the questionnarie or to visit the nurse at the hospital at a time of their choice in case they were experiencing distress and mental problems in their lives.

Participants were provided with information about the purpose of the study, its tool (questionnaire), the risks and benefits of participation, confidentiality, informed consent and the right to refuse or terminate participation at any time without any consequence. The participants (adolescent attempt suicide cases who above the age of 15 on the participating time) were asked to give written informed consent by themselves without parents' participation because parents are

often not easily found. Time and budget constraint limitation did not allow to contact parents for their informed consent**.** This practice has been adopted in many research studies in Thailand and it is based on the following considerations. The issue that needs to be addressed here is the capacity of adolescents to consent to research participation without the direct involvement of parents and guardians. First of all it needs to be pointed out that the degree of emancipation, maturity and autonomy of adolescents in decision making varies considerably within stages of adolescence.

In Thailand there are no well-established legal rules that provide guidance regarding the age of consent for participation in research. Also there are no well-established legal rules or age requirements for attendance of certain clinical services, e.g. STI clinics, family planning services and drug treatment programs. However, the 'Civil and Commercial Code' is very explicit regarding the autonomy and capability of minors to make decisions in general. Sections 23 of the Civil Code states that "a minor can do all acts which are strictly personal" while Section 25 states that "a minor older than 15 years can make a will" In cases involving emancipated or mature minors with adequate decision-making capacity, or when otherwise permitted by law, physicians should seek **informed consent** directly from patients. (Pediatrics 1995). Some other legal age requirements are the age of obligatory education (which is 15 years) and the age of performing certain professions, allows boys of 15 years of age and older to take up a job without parental consent. The Labour Protection Act allows 15 to18 year olds to work without parental consent, but prohibits this age group from working in professions which pose a risk to their health. What we can tentatively derive from these practices and legal requirements is that adolescents in Thailand are considered mature enough to be autonomous in decision making by the time they have reached the age of 14, unless their decisions pose a potential risk to their health.

The study was submitted to the Ethical Review Committee for Research Involving Human Research Subjects, the college of public health science, Chulalongkorn university.

3.10 Limitations

The study population represented attempted suicide cases that were reported to medical services and did not include the committed cases. Therefore the results of this study cannot be generalized to all Chaiprakarn district adolescents that are at risk of suicide .

CHAPTER IV
RESULTS

This chapter presents the findings from the data analysis of the survey.

4.1 Univariate Analysis

Of 30 suicide attempted cases, two were completed suicide at the first attempt, and one adolescent male committed suicide later on during a second attempt, another three cases were not living in Chaiprakarn district at the period of the sutdy. Finally 23 remaining attempted suicide cases were studied. The prevalence of adolescent attempted suicide of Chaiprakarn district is equal to 12.0/100,000 population, the prevalence of adolescent who committed suicide is equal 1.3 / 100,000 population, and the prevalence of total adolescent suicide (attempted and committed suicide) is equal to 13.3 / 100,000 population (estimated mid-year population of Chaiprakarn district 45,000 persons).

(1) Adolescents' socio-demographic and behavioral factors

Table 1 shows the socio-demographic and behavioral characteristics of the participants. Age distribution ranges from 12 to 19 years (mean 15.74, SD 1.98) with slight female predominance (56.5%). Ethnicities are Thai (78.3%), Hill tribe minorities (13%), and Chinese (8.7%). All adolescents are Buddhist and most go to temple or church as a practice of religion (65.2%), while the rest 34.8% do not practice. Educational status at the time of suicide is: third year level (39.1%), working - not educated (21.7%), foruth, fifth and sixth year level 13 %. Most are usual school attenders(63.2%) with reported grades from 2 to 2.99 (68.4%). Most of them have feeling of depression and guilt when grades fall(73.7%). Respondents living with biological parents are 73.9% and with relatives and others are 13% Suicide items present at the living place as insecticides, analgesics / NSAIDs, and paracetamol are 24.6 %, herbicides 21.9%, psychiatric related drugs and firearms are very few at 2.72%,and 1.36% respectively.

(2) Parents' socio-demographic and behavioral factors

Table 2 shows the socio-demographic and behavioral characteristics of the respondents' parents. Agriculture is the most common occupation for both fathers (73.9%) and mothers(56.5%), merchants is the second most common (13% of fathers and 26.1% of mothers), civil servants are the least (4.3%) for both sexes. Parental living status is: living together 69.6%, divorced 26.1%, and for one adolescent the mother was dead. Average monthly income of family is: 5,001 – 10,000 Baht (52.2%), 10,001 – 20,000 Baht (39.1%), 20,001 – 30,000 Baht and 30,000 – 50,000 Baht are 4.3%. Buddhist religion is the most common (95.7% of fathers and 100% of mothers) and both parents practice by going to the temple or church (82.6% of father s and 95.7% of mothers). Parental yelling at each others is 30.4%

Table 1 Adolescents' Socio-demographic and behavioral factors (N=23)

Socio-demographic and behavioral factors	Frequency	Percentage
Age		
10 – 14 Years	6	26.0
15 - 19 Years	17	74.0
Mean 15.74 years, SD 1.98 range 12 -19 years		
Gender		
Male	10	43.5
Female	13	56.5
Ethnicity		
Thai	18	78.3
Other minorities (Chinese and hill tribes)	5	11.7
Religion		
Buddhist	23	100.0
Practice of religion		
Practice (go to temple, church, or meditation)	15	65.2
No practice	8	34.8
Educational status at the time of suicide attempt		
Primary school level	9	39.1
secondary school level	9	39.1
Working	5	21.8
School attendance frequency (N=19)		
Ususal	12	63.2
Sometimes (occasional and seldom)	7	36.8
School lesson classified by participants		
Good (mostly get grades equal or more than 75 % or GPA 3.00 – 4.00)	5	21.7
Fair (mostly get grades lower than 75 % or GPA 1.00 – 2.99)	14	60.8
Uneducated cases	4	17.5
Feeling of depression or guilty when school grade fall (N=19)		
Yes	14	73.7
No	5	26.3
Present of the following suicide risk items in living place (multiple answers)		
Herbicides and insectides	24	38.1
Medical drugs (Analgesics/NSAIDs, paracetamol, psychatric realted drugs)	38	60.3
Firearms	1	1.6
Living with whom at the time of suicide attempt		
Biologic Parents	17	73.9
Relatives or the other person	6	26.1

Table 2 Parents' Socio-demographic and behavioral factors (N=23)

Socio-demographic and behavioral factors	Number	Percentage
Father's occupation		
Agriculturer	17	73.9
Non agricultuere (merchant, civilian officer, and other)	6	26.1
Mother's occupation		
Agriculturer	13	56.5
Non agricultuere (merchant, civilian officer, and other)	10	53.5
Parental living status		
Living together	16	69.6
Not living together	7	30.4
Religion of the participants' father		
Buddhist	22	95.7
Christian	1	4.3
Religion of the participants' mother		
Buddhist	23	100
Practice of religion of the father		
Go to temple or church	19	82.6
No practice	4	17.4
Practice of religion of the mother		
Go to temple or church	22	95.7
No practice	1	4.3
Average monthly income of family		
5,001 – 10,000 Baht	12	52.2
More than 20,000 Baht	11	47.8
Parental often fight or yell at each other		
Present	7	30.4
Absent	16	69.6

(3) Mental health history factors

Table 3 shows the mental health history characteristics of the respondents. Disruptive behavior disorders; adolescents occasionally quarrel with parents (56.5%).Most of them never physically abuse their girlfriend or boy friend (52.2%), the remaining respondents occasionally (30.4%), seldom (13.0%), and usually (4.3%) abuse, All of them are never being abused by their girlfriend or boy–friend. Just 3% like to bully other students at the school, and no one is being bullied by others at the school. Substance abuse ; ever have substance abuse problems 43.5%, most of them use alcohol (90%), and 10% only use amphetamine (10%). Medical diagnosis of mental disorder; 47.8% have had a physician or nurse who ever told them of their mental health problems and 81.8% accept that the mental health problems they ever told are true. Only one case has the mother who did attempted suicide or died due to suicide. According to sexual orientation , most have never had desire to have sex with someone of their own sex (95.7%). All adolescent never had sex with someone of their own sex and never have been sexually abused by others.

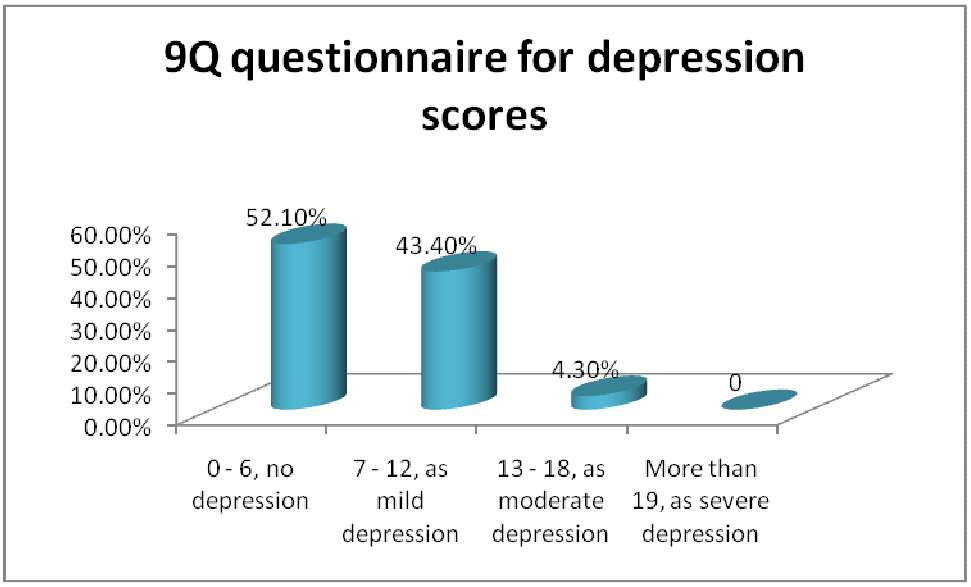
Table 3 Mental Health History factors (N=23)

Socio-demographic and behavioral factors	Number	Percentage
Disruptive behavior disorders		
Quarrels with parents frequency		
Usually	9	39.1
Occasional	13	56.5
Seldom	1	4.3
Physically abuse girlfriend / boyfriend		
Usually	1	4.3
Occasional	7	30.4
Seldom	3	13.0
Never	12	52.2
Being physically abused by girlfriend / boyfriend		
Never	23	100.0
Like to bully other students at the school		
Accept	3	13.0
Not accept	20	87.0
Being bullied by other at the school		
No	23	100.0
Substance abuse		
Ever had substance use problems		
Ever	10	43.5
Never	13	56.5
Kind of substance or drug which most often take (N=10)		
Alcohol	9	90.0
Amphetamine	1	10.0
Medical diagnosis of mental disorder		
A physician or nurse ever had told of mental health problems		
Ever	11	47.8
Never	12	52.2
Thinking that ever told mental health problems are true (N=11)		
Accept	9	81.8
Not accept	2	18.2
Desire to have sex with someone of their own sex		
Ever	1	4.3
Never	22	95.7
Have sex with someone of their own sex		
Never	23	100
Have been sexual abused by others		
Never	23	100
Parents ever did attempted suicide or died due to suicide		
Present, participant's mother	1	4.3
Absent	22	95.7

(4) Depression evaluation test with 9 questions (9Q)

Figure 2 shows the depression evaluation test score distribution of the respondents.(Mean 6.82, Median 6.00, SD 2.87, P_{25} 5.00, P_{50} 6.00, P_{75} 9.00). Most (52.1%) were not suffering depression, 43.4% had mild depression, and only one adolescent had moderate depression which needs active following-up.

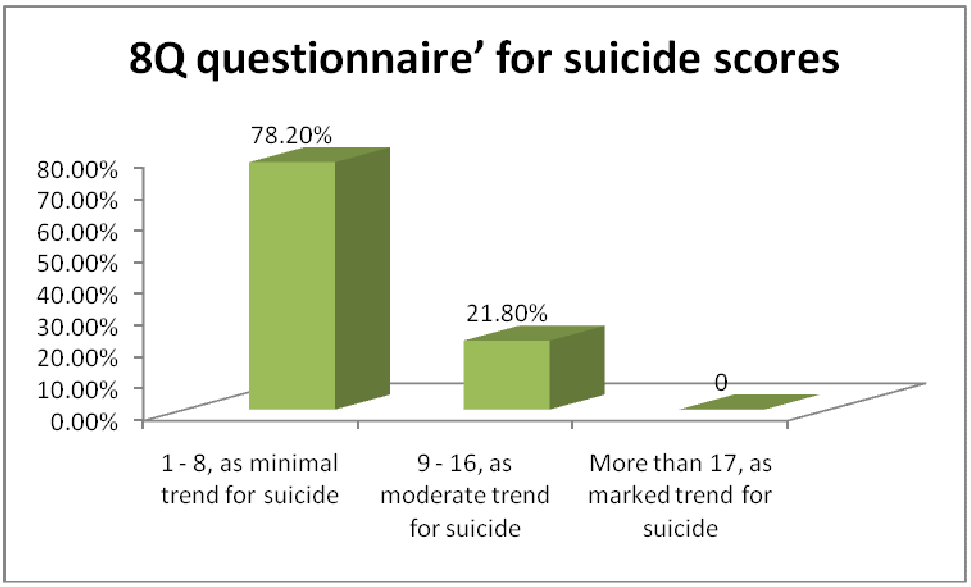
Figure 2 : 9Q questionnaire for depression scores of attempted suicide adolescents (n = 23)



(5) Suicide evaluation test with 8 questions (8Q)

Figure 3 shows the suicide evaluation test score distribution of the respondents Mean 6.21, Median 5.00, SD 2.52, P_{25} 4.00, P_{50} 5.00, P_{75} 7.00). 78.2% have minimal trend for suicide, whereas the remaining have moderate trend for suicide which needs active following-up.

Figure 3 8Q questionnaire for suicide scores of attempted suicide adolescents



(6) Mental health and substance problems before suicide attempted event

Table 4 shows the Mental health and substance problems before the attempted suicide of the respondents according to the medical record reviews:- 69.6% had no specification, 21.7% had psychosomatic disorders, and 8.7% had substance abuse or association

Table 4 Mental health and substance problems before suicide attempted event (n = 23)

Problems	Number	Percentage
Psychosomatic disorders	5	21.7
Substance abuse or association	2	8.7
No specification	16	69.6

(7) Adolescent causes of suicide attempt

Table 5 shows the respondents causes of suicide attempt according to the medical record reviews:- 47.8% had no specification causes, 26.1% have quarreled with parents or relatives and 17.4% quarreled with boy/girlfriend Only 4.3% failed school performance.

Table 5 Adolescent causes of suicide attempt (n = 23)

Causes	Number	Percentage
Have quarrel with parents or relatives	6	26.1
Have quarrel with boy/girlfriend	4	17.4
Have quarrel with friends	1	4.3
Failed school performance	1	4.3
No specification	11	47.8

(8) Adolescent suicide attempt methods

Table 6 shows the respondents causes of suicide attempt according to the medical record reviews:- drug overdose were the most common (65.2%), whereas herbicide or insecticide ingestion (17.4%), corrosive agent ingestion (13.0%), and physical self harm (4.3%) were less common.

Table 6 Adolescent suicide attempt methods (n = 23)

Methods	Number	Percentage
Drug overdose	15	65.2
Herbicide or insecticide ingestion	4	17.4
Corrosive agent ingestion	3	13.0
Physical self harm	1	4.3

4.2 Multivariate Analysis

Table 7 shows the relations between independent variables (adolescent socio - demographic and behavioral factors, parents' socio-demographic and behavioral factors, mental health history factors, depression evaluation test (9Q), and suicide evaluation test (8Q). Total 23 attempted suicide cases were calculated for the Chi – Square test ith significant level of 95% ($p < 0.05$)

There are significant associations between suicide evaluation test with 8 questions (8Q) and the following independent variables: ,mother 's practice of religion (Chi–Square 23.000, p-value 0.001), abuse girlfriends or boyfriends (Chi – Square 42.475, p-value 0.001), ever had substance use problems (Chi–Square 13.471, p-value 0.036), kind of substance use (Chi–Square 10.000, p-value 0.019), ever had a physician or nurse ever told participants suffer of mental health problems and participants have thought them truth. (Chi–Square 11.000, p-value 0.027), ever desired to have sex with someone of participants' own sex (Chi–Square 23.000, p-value 0.001). The remaining independent variables have showed no significant associations**.**

Table 7 Relation between independent variables and adolescent suicide (N = 23)

Independent variables	Chi-square	p-value
Adolescent socio-demographic and behavioral factors		
Age	3.783	0.804
Gender	6.350	0.385
Ethnicity	15.333	0.224
Religion	a	
Practice of religion	15.836	0.015
School attendance frequency	14.024	0.299
Class Grade Point Average in the school	10.055	0.611
Feeling of depression or guilty when school grade fall	6.033	0.419
Present of the following suicide risk items in living place		
Herbicides	6.508	0.369
Insecticides	6.885	0.332
Firearms	1.960	0.923
Analgesics / NSAIDs	11.244	0.081
Paracetamol	11.979	0.062
Psychatric realted drugs	10.405	0.109
Living with whom at the time of suicide attempt	12.477	0.408
Parents' socio-demographic and behavioral factors		
Father's occupation	11.387	0.877
Mother's occupation	16.940	0.527
Parental living status	9.963	0.619
Religion of the participants' father	4.966	0.548
Religion of the participants' mother	a	
Practice of religion of the father	9.949	0.127
Practice of religion of the mother	23.000	0.001
Monthly income of family	17.351	0.499
Parental often fight or yell at each other	7.453	0.281
Mental health history factors		
Disruptive behavior disorders		
Quarrels with parents frequency	18.053	0.114
Physically abused to girlfriend / boyfriend	42.475	0.001
Being physically abused by girlfriend / boyfriend	17.440	0.134
Like to bully other students at the school	6.469	0.373
Being bullied by other at the school	a	
Substance abuse		
Ever had substance use problems	13.471	0.360
Kind of substance or drug which most often take	10.000	0.019
Medical diagnosis of mental disorder		
A physician or nurse ever had told of mental health problems	11.291	0.504
Thinking of mental health problems that ever heard are true	11.000	0.027
Desire to have sex with someone of their own sex	23.000	0.001
Being sexually abused by others	a	
Parents ever did attempted suicide or died due to suicide	1.960	0.923
Depression evaluation test with 9 questions (9Q)	57.260	0.169

*($p < 0.05$), ** ($p < 0.01$)
a . No statistics are computed because of constant value.

Medical records. Of 23 attempters meeting the inclusion criteria had been reviewed for previous history of mental health and substance problems before suicide, adolescent suicide causes, and adolescent suicide method been used. The results are presented in table 8.

Table 8 Other issues related to adolescent suicide in the study (N = 23)

Other issues	Chi-square	p-value
Mental health and substance problems before suicide	16.280	0.179
Adolescent suicide cause	19.769	0.710
Adolescent suicide method been used	17.857	0.465

CHAPTER V

DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Discussion

The study has revealed the prevalence of 13.3 of adolescent attempted and committed suicide of Chaiprakarn district, approximately closed to the adulthood suicide rate of Chiang Mai province 13.7 (Suicidal risk person helping project, 2010) and Chaiprakarn district 14.9 in 2009 (Jakchai, 2010). Whether lower than the world rate of 16.0, but the suicide rate of 13.3 is far higher than the Thai national rate of 5.96 and recommended target rate of 6.3, this contrasts with research by Nita (2007) which have divided the countries into four groups, depending on their suicide rates, and Thailand was in the low suicide rate group, countries like Spain (8.2), Italy (7.1), UK (6.9), Israel (6.3), Argentina (6.4), Brazil (4.1), Thailand (4) , Iran (2), However the study has showed the committed rate Chaiprakarn district was lower than the Thai national committed rate 5.73 (Department of Mental Health, Community Mental Health 2009).

Socio-demographic and behavioral factors.

Adolescent suicide research has, by and large, focused on demographic risk factors. This approach provides descriptive data and correlates demographics with suicide risk. (Philip, 2011). Adolescent socio-demographic and behavioral factors in the study showed significant association with suicide for the practice of religion (Chi–Square 15.836, p-value 0.015). Adolescents who practice less religion have more suicide attempted events than those who practice more religion. Religious affiliation is associated with less suicidal behavior in depressed inpatients (Kanita , 2004). Parents' socio-demographic and behavioral factors in the study also showed the significant association between attempted suicide and the practice of religion by the adolescents' mother (Chi–Square 23.000, p-value 0.001). Parent-adolescent conflict is a risk factor for suicide attempts and reducing parent-daughter conflict and fostering closer family ties has the added effect of improving self-esteem and shrinking the likelihood of suicide attempts (Kuhlberg, 2010). When mothers and their children share the same level of religious practice, they experience better relationships with one another, mothers who attended religious services less often over time reported a lower-quality relationship with their adult child.(Pearce, 1998) Grandmothers' religious practice illustrates an intergenerational influence. The more religious a mother's mother is, the more likely the mother has a good relationship with her own child**.** Religious participation appears to foster an authoritative, warm, active, and expressive style of parenting. In addition, parents who attend religious services are more likely to enjoy a better relationship with their children (Lisa, 1998). Conversely, a lack of religious affiliation correlates with an increased risk of suicide (Frank, 1990)

Mental Health History factors.

Physically abusing girlfriend / boyfriend showed significant association with the suicide evaluation test (Chi–Square 42.475, p-value 0.001). There are many relevant studies identifying this kind of association. Adolescents who had been physically or sexually abused were significantly more likely to experience suicidal thoughts and behaviors than other adolescents. (Emma, 2002). Sandra (1997) found that abused adolescents showed significantly greater exposure to risk factors for adolescent suicide:. 1 in 5 female high school students reports being physically and/or sexually abused by a dating partner. Abused girls are significantly more likely to get involved in other risky behaviors. They are 4 to 6 times more likely to get pregnant and 8 to 9 times more likely to have tried to commit suicide (Silverman, 2004).

In this study 43.5% of adolescent ever had substance use problems (Chi–Square 13.471, p-value 0.360), although there was no significant association with the suicide evaluation test among respondents with substance abuse 90 % took alcohol, which showed significant difference with suicide evaluation test (Chi–Square 10.000, p-value 0.019). The National Household Survey on

Drug Abuse (NHSDA, 2002) reported youths who reported past year alcohol or illicit drug use to be more likely than youths who did not use these substances to be at risk for suicide. Brent (1993) found that substance abuse (OR = 8.5) is the most significant psychiatric risk factors associated with adolescent suicide, and conduct disorder (OR = 6.0), moreover substance abuse was a more significant risk factor when comorbid with affective illness than when alone (OR = 17.0 versus 3.3). The suicide rate in young people has more than doubled during the period from 1956 to 1993. This increasing suicide rate has been blamed on the increase of adolescent alcohol abuse. Availability of alcohol and guns at home may contribute to suicide risk in adolescents. (Sher, 2005). Abuse of, or dependence on, alcohol and other psychoactive substances in adolescence is often associated with suicidal ideation, suicide attempts (Berman, 1994; Beautrais, 1996), and completed suicide (Brent, 1988). Longitudinal studies of adolescent psychiatric patients and suicide attempters have found alcohol and drug abuse to be one of the major risk factors for suicide (Östman,1991; Hawton, 1993). In a meta-analysis, the lifetime risk of suicide for alcoholism was estimated at 7% (Inskip, 1998). Moreover, suicidal behaviour is more common among alcoholics with early rather than late onset of heavy drinking (Buydens, 1989).

In this study 47.8 percent of adolescents have been told of their mental health problems by a physician or nurse and there was no significant association with the suicide evaluation test (Chi–Square11.291, p-value 0.504).Significant association was instead found in those who agree that they suffer of mental health problems (Chi–Square 11.000, p-value 0.027). According to Sprague (1997) the most accurate predictors of suicide are previous attempts and mental health problems. Shaffer (1994) agrees that retrospective studies of suicide among young males show that a previous suicide attempt is the strongest predictor of suicide, asserting also that for young females there is typically a prior episode of depression. In up to 90 per cent of cases there is a strong association between suicide and some form of psychotic disturbance. Adolescence need to be taken seriously, and that those who have tried to commit suicide need appropriate monitoring and follow-up. Follow-up is particularly important for this study as well sicne we have found 21.8% of respondents still with moderate trend for suicide.

Desire to have sex with someone of their own sex present is minimal (4.3%), but has significant association with the suicide evaluation test.(Chi–Square 23.000, p-value 0.001). Sexuality problems are relevant as a risk factor in suicide ideation in gay, lesbian and bisexual adolescents. Proctor (1994) identified prevalence rates of suicide ideation as high as 66.1 per cent in these groups. The researchers explain the findings in terms of the inability of some gay, lesbian and bisexual adolescents to cope with the discrimination, loneliness and isolation they face because of their sexuality; whereas others have support from their peers/ families and community. Concern about sexual orientation was also shown to be more frequent among young people who engaged in self-harm (11 %) compared to those who did not have such worries (3 %) in a study by Hawton (2002).

Depression evaluation test with 9 questions (9Q)

No significant association (Chi – Square 57.260, p-value 0.169) was shown between depression (evaluated with 9Q) and the adolescent suicide test. This finding is in contrast with many studies, Eric Fombonne reported that adolescent depression is associated with risks of adult suicide and persistent interpersonal difficulties. One study that studied depressed adolescents with a history of sexual abuse, have found a higher incidence of posttraumatic stress disorder, but no increase in the severity of depression symptoms nor tendency for suicide.(Brand, 1996). Denise (1987) found that depression predicts drug involvement, and in turn, drug use increases suicidal ideation. Delinquency and eating disorders also have direct effects on suicidal ideation beyond those of depressive affect.Mary (1988) has found in adult populations hopelessness to be a better predictor of suicidal intent than depression, although depression and hopelessness were highly correlated, neither predicted suicidal intent.

Other issues

The difficulty of this study was in calculating the prevalence of suicide among teenagers in Chiang Mai. The difficulty is due to the fact that there are different kind of reporting procedures and missing data of suicide statistics in different districts of Chiang Mai provincial public health office. In addition not all districts have sent up to date reports of completed and attempted suicide cases to the provincial public health office.

5.2 Conclusion

The study of adolescent attempted and committed suicide in the Chaiprakarn district, Chiang Mai province shows a high prevalence of 13.3 per 100,000 people, two folds higher than the Thai national and recommended target rate. Significant association between independent variables and adolescent intention to attempt suicide are: practice of religion of adolescents and mothers, physically abusing girlfriend / boyfriend, alcohol use, agreement with physician or nurse for the presence of their mental health problems, and sexual orientation. Depression, hads no significant association with adolescent intention to attempt suicide. Most of the study results are congruent with the conceptual framework of the study. Missing data of suicide in Chiang Mai provincial public health office might have influenced the significance of other independent variables.

5.3 Recommendation

1. There should be a team, consisting of a physician, mental health nurse, and teacher working together with the community and the secondary schools to prevent or decrease adolescent suicide in the Chaiprakam district.

2.More support groups of mental health rehabilitation for parents and close relatives of suicide cases are needed. The district mental health nurse should facilitate the interaction of these groups.

3. Adolescents with previous history of attempted suicide need to be closely monitored and followed up, as they are particularly prone to repeated self-harm after discharge from hospital. New strategies need to be developed to help this group of individuals with effective prevention in Chaiprakam district.

4. Information management, and an effective database (GIS form) on suicide from the provincial health office should be improved, completed and made consistent for all districts in Chiang Mai. A reliable information system can be useful to different level of staff.

5. For future research in order to get more informative results, it would be useful to study adolescents with history of suicide and compare them to adolescent without history of suicide and identify some characteristics that are specific to each of the two groups.

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APPENDICES

APPENDIX A

(Patient / Participant Information Sheet)

Title of research project Situational Analysis of Adolescent Attempted Suicide in Chaiprakarn District, Chiangmai Province,Thailand.

Principle researcher's name Jakchai Tittabut **Position** Director of Chaiprakarn Hospital

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1. You are being invited to take part in a research project. Before you decide to participate it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and do not hesitate to ask if anything is unclear or if you would like more information.

2. This research project involves Situational Analysis of Adolescent Attempted Suicide in Chaiprakarn District, Chiangmai Province,Thailand.

3. Objectives of the project are to determine
   - The relationship of adolescent socio-demographic and behavioral factors with adolescent attempted suicide.
   - The relationship of parents' socio-demographic and behavioral factors with adolescent attempted suicide.
   - The relationship of mental health history factors with adolescent attempted suicide.
   - The relationship of depression with adolescent attempted suicide.
   - The prevalence of adolescents' intention to commit suicide and attempted suicide in Chaiprakarn district.

4. Details of participant.

   The study population are adolescent suicide cases as young people 10-19 years old who had attempted suicide in Chaiprakarn district, Chiangmai province, Thailand, since 2006 – 2010. Adolescents are defined by WHO, for this study in the times of interview adolescent suicide cases who had attempted suicide are all above the age of 15year old. There are total 30 adolescent suicide cases of Chaiprakarn district,for in the study which 28 cases are attempters and two cases of committers, the 28 attermpters are proposively selecting. All total 40 questionnaires are expected to finished within an hour.The participants will answering for two sections, and estimating time to completed as following

   Section 1 for non sensitive questionnaires, 30 minutes, categorized into three parts,

   part A, 11 questions about adolescent socio-demographic and behavioral factors, 15 minutes.

   part B, 9 questions about parents' socio-demographic and behavioral factors, 15 minutes.

Section 2 for sensitive questionnaires, 30 minutes, also categorized into three parts

part A, Mental health history, which running in depth, 5 questions about disruptive behavior disorders, 2 questions about substance abuse, and 6 questions about of medical diagnosis of mental disorder, 10 minutes completeness

Part B, answering 9 questions with Depression evaluation test (9Q), 10 minutes completeness

part C, answering 8 questions with Suicide evaluation test (8Q), 10 minutes completeness

5. Procedure upon participants

. Researcher described the research details principle, aims, and data collection methods to the assitant researcher. The latter onewas the mental health registered nurse of Chaiprakarn hospital, trained an approved for community mental health care by Srithanya hospital, one of a standard mental health and psychiatric care centers in Thailand. Prior to starting the filling in of the questionnaire , the mental health registered nurse, experienced in conducting mental health research, explained the objectives of the research, the utilization of the results, the right of non- participating to the research and collected the signed consent .The mental health registered nurse also explained the last part of the questionnaire with sensitive questions on sex, drug, mental or behavior disorders, Depression evaluation test with 9 questions (9Q), and Suicide evaluation test with 8 questions (8Q). Questionnaires were completed at the Chaiprakarn meeting hall

The mental health registered nurse collected the questionnaires, and stayed close to the respondents during the filling in of the questionnaires to provide clarifications to subjects and their parent as required, in particular to deal with uncomfortabe stressful emotions of the participants in answering the questionnaire. Any participant who did not want to continue the questionnaire, could stop and withdraw anytime as stated in the ethical considerations participation to the study. After all of the participants are finish the questionnaires and have been leaving, two locked boxes of non sensitive questionnaires and sensitive questionnaires will be disclose and the mental health registered nurse will staple together by matching the sequential number written on the two part of the questionnaire.

If potential participant is can not write/can not speak native language, The registered nurse will be act as a helper of the research assistant. The participants (15 to 19 years olds adolescents) will be asked to give written informed consent If the process of **screening** potential participant found a person not meet inclusion criteria and in need of help/advice, researcher needs to state what will be done for that person. Information collected during the study will be presented as total numbers without identification of participating . Three hundred baht fee assigning to every participants a travelling budget.

6. Expected result :

Communities in Chaiprakarn will have a better understanding of adolescent suicide related factors, reduce stigma against individual and families with history of suicide take relevant action. The researcher expect the study result can be Improve community based program for the prevention of adolescents' suicide.

7. If you have any doubt, please directly contact Mr. Jakchai Tittabut anytime via telephone, additional benefits or risks will be informing you as soon as possible for your decision to participating or not.

8. All participant will be kept in confidence and the questionnaires will be delete after the study finished.The results of the study will be presenting in a whole picture, and cannot be

identifying you. If you feel perceiving harm or unsatisfaction due to the study, Any uncomfortably, worry or suspicion may asking personality and confidentiality later after finish all the questionnaires.

9. Three hundred baht fee assigning to every participants a travelling budget.

10. If the participants are not treated as indicated in the information, the participants can report the incident to the Ethical Review Committee for Research Involving Human Research Subjects, Health Sciences Group, Chulalongkorn University (ECCU). Institute Building 2, 4th Floor, Soi Chulalongkorn 62, Phyathai Rd., Bangkok 10330, Thailand, Tel: 0-2218-8147 Fax: 0-2218-8147 E-mail: eccu@chula.ac.th.

APPENDIX B
INFORMED CONSECT FORM

Address ……
Date ……..
Code number of participant ……
Title "Situational Analysis of Adolescent Attempted Suicide in Chaiprakarn District, Chiangmai Province, Thailand."
Principle researcher's name Jakchai Tittabut
Contact address Chaiprakarn Hospital, Chaiprakarn District, Chiangmai Province, Thailand
Telephone 053-871001

I who have signed here below agree to participate in this research project.

I read the information sheet about rationale and objective(s) of the project, what I will be engaged with in details, risk and benefit of this project. The researcher has explained to me and I clearly understand with satisfaction.

I willingly agree to participate in this project and consent the researcher to interview me by using a questionnaire for about one hour.

I have the right to withdraw from this research project at any time as I wish with no need to give any reason. Either my withdrawal or my refusal to answer certain questions will not have any negative impact upon me.

I have the capacity of adolescents to consent to research participation without the direct involvement of parents and guardians. Sections 23 of the Civil Code states that "a minor can do all acts which are strictly personal" while Section 25 states that "a minor older than 15 years can make a will"

Researcher has guaranteed that procedure(s) acted upon me would be exactly the same as indicated in the information. Any of my personal information will be kept confidential. Results of the study will be reported as total picture. Any of personal information which could be able to identify me will not appear in the report.

If I am not treated as indicated in the information sheet, I can report to the Ethical Review Committee for Research Involving Human Research Subjects, Health Sciences Group, Chulalongkorn University (ECCU). Institute Building 2, 4 Floor, Soi Chulalongkorn 62, Phyat hai Rd., Bangkok 10330, Thailand, Tel: 0-2218-8147 Fax: 0-2218-8147 E-mail: eccu@chula.ac.th,
I also have received a copy of information sheet and informed consent form

Sign ……..…… Sign ……..……

(……..……) (……..……)

Researcher Participant

Sign ……..……

(……..……)
Witness

APPENDIX C

Code number of participant ……

Section 1: Non sensitive questionnaires

A: Adolescent socio-demographic and behavioral factors

1. Age……..years
2. Gender
☐ 2.1 Male
☐ 2.2 Female
3. Ethnicity
☐ 3.1 Thai
☐ 3.2 Hill tribe minorities
☐ 3.3 Chinese
☐ 3.4 Others……
4. Religion
☐ 4.1 Buddhist
☐ 4.2 Christian
☐ 4.3 Muslim
☐ 4.4 Others……
5. Practice of religion
☐ 5.1 Go to temple or church
☐ 5.2 Meditation
☐ 5.3 Praying
☐ 5.4 No practice
☐ 5.5 Others……
6. Educational status at the time of suicide attempt
☐ 6.1 Third year level
☐ 6.2 Forth year level
☐ 6.3 Fifth year level
☐ 6.4 Sixth year level
☐ 6.5 University level
☐ 6.6 Working
7. How frequent of your school attendance?
☐ 7.1 Usual
☐ 7.2 Occasional
☐ 7.3 Seldom
8. How would you classify your school lesson?
☐ 8.1 I mostly get grades from 3 to 4
☐ 8.2 I mostly get grades from 2 to 2.99
☐ 8.3 I mostly get grades from 1 to 1.99
9. Do you feel depress or guilty when your school grade fall?
☐ 9.1 Yes
☐ 9.2 No

10. Do you have the following in your living place? (can be choose more than one choices.)
- ☐ 10.1 Herbicides
- ☐ 10.2 Insecticides
- ☐ 10.3 firearms
- ☐ 10.4 Analgesics / NSAIDs
- ☐ 10.5 Paracetamol
- ☐ 10.6 Psychatric realted drugs (such as: valium, sleeping piils, antiepileptic drugs ……)
- ☐ 10.7 Others……. (please specify)

11. Whom do you live with? (at the time of suicide attempt)
- ☐ 11.1 Biologic Parents
- ☐ 11.2 Adoptive/step parents
- ☐ 11.3 Relatives
- ☐ 11.4 Other person
- ☐ 11.5 Alone ,e.g. living in dormitory.

B: Parents' socio-demographic and behavioral factors

12. What is your father's occupation?
- ☐ 12.1 Agriculturer……..
- ☐ 12.2 Merchant……...
- ☐ 12.3 Civilian officer…….
- ☐ 12.4 Private officer……..
- ☐ 12.5 Others……...(please specify)
- ☐ 12.6 None, job seekers

13. What is your mother's occupation?
- ☐ 13.1 Agriculturer……..
- ☐ 13.2 Merchant……...
- ☐ 13.3 Civilian officer…….
- ☐ 13.4 Private officer……..
- ☐ 13.5 Others……...(please specify)
- ☐ 13.6 None, job seekers

14. Are both your parents present?
- ☐ 14.1 Yes
- ☐ 14.2 No, because they are divorced
- ☐ 14.3 No, because they are both dead
- ☐ 14.4 No, because my father is dead
- ☐ 14.5 No, because my mother is dead

15. What is your father's religion
- ☐ 15.1 Buddhist
- ☐ 15.2 Christian
- ☐ 15.3 Muslim
- ☐ 15.4 Others……

16. What is your mother's religion
- ☐ 16.1 Buddhist
- ☐ 16.2 Christian
- ☐ 16.3 Muslim
- ☐ 16.4 Others……

17. How do your father take the practice of religion
- ☐ 17.1 Go to temple or church
- ☐ 17.2 Meditation
- ☐ 17.3 Praying
- ☐ 17.4 No practice
- ☐ 17.5 Others……

18. How do your mother take the practice of religion

☐ 18.1 Go to temple or church
☐ 18.2 Meditation
☐ 18.3 Praying
☐ 18.4 No practice
☐ 18.5 Others……

19. Average monthly income of your family

☐ 19.1 less than 5,000 Baht
☐ 19.2 5,001 – 10,000 Baht
☐ 19.3 10,001 – 20,000 Baht
☐ 19.4 20,001 – 30,000 Baht
☐ 19.5 30,000 – 50,000 Baht
☐ 19.6 More than 50,001 Baht

20. Do your parents often fight or yell at each other?

☐ 20.1 Yes
☐ 20.2 No

Code number of participant ……
Section 2: Sensitive questionnaires

A. Mental health history

- Disruptive behavior disorders

21. How often do you have quarrels with your parents?
☐ 21.1 Usually
☐ 21.2 Occasionally
☐ 21.3 Seldom

22. How often have you physically abused your girlfriend / boyfriend ?
☐ 22.1 Usually
☐ 22.2 Occasionally
☐ 22.3 Seldom
☐ 22.4 Never

23. How often have you been a physically abused by your girlfriend / boyfriend ?
☐ 23.1 Usually
☐ 23.2 Occasionally
☐ 23.3 Seldom
☐ 23.4 Never

24. Do you like to bully students in your school?
☐ 24.1 Yes
☐ 24.2 No

25. Are you being bullied at the school by others?
☐ 25.1 Yes
☐ 25.2 No

- Substance abuse

26. Have you ever had substance use problems?
☐ 26.1 Ever
☐ 26.2 Never (skip to question no.28)

27. Which kind of substance or drug do you most often take?
☐ 27.1 Cigarette
☐ 27.2 Alcohol
☐ 27.3 Amphetamine
☐ 27.4 Tinner
☐ 27.5 Other…….

- Medical diagnosis of mental disorder?

28. Has a physician or nurse ever told you that you suffer of mental health problems ?
☐ 28.1 Ever, about your……
☐ 28.2 Never (skip to question no.30)

29. Do you think that's they said are true?
☐ 29.1 Yes
☐ 29.2 No

30. Have you ever desired to have sex with someone of your own sex (boy with boy or girl with girl)
☐ 30.1 Yes
☐ 30.2 No

31. Have you ever had sex with someone of your own sex (boy with boy or girl with girl)
☐ 31.1 Yes
☐ 31.2 No

32. Have you ever had sexual abused by others
☐ 32.1 Yes
☐ 32.2 No

33. Have your parents ever attempted suicide or died due to suicide?
☐ 33.1 Yes, my father
☐ 33.2 Yes, my mother
☐ 33.3 No

B. Depression evaluation test with 9 questions (9Q)

There are 9 questions according to the Diagnostic criteria for MDD (DSM IV-TR)

Questions **Do you have following symptoms for 2-week period or more**.	**None** (1pt.)	**Seldom** [1-7days] (1 pt.)	**Frequent** [>7days] (1 pt.)	**Everyday** (1 pt.)
1. Depressed mood most of the day, nearly every day, as indicated by either subjective report (feels sad or empty) or observation made by others.				
2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day.				
3. Insomnia or hypersomnia nearly everyday				
4. Fatigue or loss of energy nearly everyday.				
5.Significant weight loss when not dieting or weight gain				
6. Feeling of worthlessness or excessive or inappropriate guilt.				
7. Diminished ability to think or concentrate, or indecisiveness, nearly everyday				
8. Psychomotor agitation or retardation nearly everyday.				
9. Recurrent thoughts of death, suicide ideation, or a suicide attempt or a specific plan for committing suicide.				

C. Suicide evaluation test with 8 questions (8Q)

Questions **.Do you have following symptoms for 1-month period or more**	**Present**	**Absent** (0 pt.)
1. Thought of death / you will better dead?---(1pt.)		
2. Thought of suicide attempt / self harm? ---(2pt.)		
3. Thoughts of suicide ideation? ---(6pt.)		
4. Have a specific plan for attempt suicide? ---(8pt.)		
5. Have a specific plan and methods for committing suicide? ---(9pt.)		
6. Self- harmed without committing suicide intention? ---(4pt.)		
7. Attempt suicide with intention to dying? ---(10pt.)		
8. For your whole life, you have been ever attempted suicide? ---(4pt.)		
According to the question number 8, if yes, for many times?		

Any uncomfortably, worry or suspicion may asking personality and confidentiality later after finish all the questionnaires.

APPENDIX D

Administration & Time Schedule

Activities	Months													
	Aug 10	Sep 10	Oct 10	Nov 10	Dec 10	Jan 11	Feb 11	Mar 11	Apr 11	May 11	Jun 11	Jul 11	Aug 11	Sep 11
1.Literature review														
2. Writing of thesis proposal														
3. Proposal examination														
4.Ethical consideration														
5. Preparation and data collection														
6.Data analysis														
7.Thesis writing														
8.Thesis examination														
9.Submission of thesis														

VITAE

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