



**EFFECTS OF ELECTRONIC MODULE INTERVENTION ON TEACHERS'
KNOWLEDGE, BELIEFS AND PRACTICES IN DRUG ABUSE PREVENTION
AMONG BALIKPAPAN HIGH SCHOOL STUDENTS, INDONESIA**

By

GHOZALI

**Thesis Submitted to the School of Graduate Studies Universiti Putra Malaysia, in
Fulfilment of the Requirements for the Degree of Philosophy**

May 2019

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

**EFFECTS OF ELECTRONIC MODULE
INTERVENTION ON TEACHERS' KNOWLEDGE, BELIEFS AND
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May 2019

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In spite of the widely campaign against drugs has been conducted, the problem of drug abuse stays at a very bothering level. In 2017, the number of drug abusers in Indonesia was 3,367,154 people or 1.77% of the population age 10-59 years, where East Kalimantan was ranked third out of 34 provinces with the prevalence of 2.12%. This study was aimed to develop and evaluate the effects of intervention using electronic module on teachers' knowledge, beliefs, and practices in drug abuse prevention.

An interventional study was conducted towards teachers in selected public junior high schools. A cluster random sampling was used to select schools in this study. A total of 260 teachers was involved in this study, 128 teachers in the group 1 and 132 teachers in group 2. Teachers' knowledge, beliefs and practices of drug abuse prevention were measured using questionnaires at three times, baseline before intervention given, post-test 1 at one month after intervention and post-test 2 at six months after intervention. Electronic module of drug abuse was applied to group 1, while the usual printed one for group 2. Sociodemographic and baseline data were analyzed descriptively. Paired-t and Wilcoxon Test were used to analyzed effects of intervention towards teacher's knowledge, beliefs and practices within group, while independent-t and Mann Whitney U Test were used to compare the effects between 2 groups. Effects of intervention between and within group then was analyzed using two-way repeated measures ANOVA.

Knowledge, beliefs, and practices at six months after intervention were significantly higher rather than at baseline ($P < 0.05$). There were no significant differences between groups in mean of knowledge and practices at six month after intervention ($P > 0.05$), while the mean score of beliefs in electronic module group was significantly higher than printed module group ($P < 0.001$).

Within group comparison showed that electronic module significantly increased teachers' beliefs and practices from baseline to one month and from one month to six months. The different condition for the knowledge, there was significant improvement from baseline to one month, but decreased from one month to six months. Printed module continuously increased teachers' knowledge and practices but not for beliefs. There was significant increased of teachers' beliefs from baseline to one month, but no significant changes from one month to six months.

Based on consistency of results, educational intervention using electronic module was better than usual printed module in improving teachers' beliefs, but not for teachers' knowledge. Electronic and printed modules have the almost equal positive effect on teachers' practices. Intervention using electronic module was significantly increased teachers' knowledge, beliefs, and practices in drug abuse prevention.

Keywords: *electronic module, drug abuse prevention, teachers' knowledge, beliefs and practices*

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**KESAN INTERVENSI MODUL ELEKTRONIK
TERHADAP PENGETAHUAN, KEPERCAYAAN DAN AMALAN GURU
MENGENAI PENCEGAHAN DADAH PADA MURID SEKOLAH MENENGAH
BALIKPAPAN, INDONESIA**

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Walaupun kempen meluas terhadap dadah telah dijalankan, masalah penyalahgunaan dadah tetap pada tahap yang sangat mengganggu. Pada tahun 2017, bilangan penyalahguna dadah di Indonesia adalah 3,367,154 orang atau 1.77% daripada penduduk umur 10-59 tahun, dimana Kalimantan Timur menduduki tempat ketiga daripada 34 wilayah dengan kelaziman 2.12%. Kajian ini bertujuan untuk membangun dan menilai kesan intervensi menggunakan modul elektronik dalam meningkatkan pengetahuan, kepercayaan, dan amalan guru dalam pencegahan penyalahgunaan dadah.

Kajian intervensi dijalankan ke arah guru-guru di sekolah menengah awam terpilih. Pensampelan rawak cluster digunakan untuk memilih sekolah dalam kajian ini. Sejumlah 260 guru terlibat dalam kajian ini, 128 guru dalam kumpulan 1 dan 132 guru dalam kumpulan 2. Pengetahuan, kepercayaan dan amalan guru terhadap pencegahan penyalahgunaan dadah diukur dengan menggunakan soal selidik pada tiga kali pengukuran, data asas sebelum intervensi diberikan, ujian pasca 1 pada satu bulan selepas intervensi dan ujian pasca 2 pada enam bulan setelah intervensi. Modul elektronik penyalahgunaan dadah telah digunakan untuk kumpulan 1, sementara modul biasa yang dicetak untuk kumpulan 2. Data sosiodemografi dan garis dasar dianalisis secara deskriptif. Paired-t dan Wilcoxon Test digunakan untuk menganalisis kesan intervensi terhadap pengetahuan, kepercayaan dan amalan guru dalam kumpulan, manakala ujian bebas-t dan Mann Whitney U digunakan untuk membandingkan kesan antara 2 kumpulan. Kesan intervensi diantara dan didalam kumpulan kemudian dianalisis dengan menggunakan ANOVA berulang dua langkah.

Pengetahuan, kepercayaan, dan amalan pada enam bulan selepas intervensi adalah lebih tinggi daripada pada asas dalam kedua-dua kumpulan ($P < 0.05$). Tidak ada perbezaan

yang bermakna antara kumpulan dalam pengetahuan dan amalan pada enam bulan selepas intervensi ($P > 0.05$), manakala terdapat perbezaan yang signifikan dalam skor kepercayaan ($P < 0.001$), nilai min kepercayaan dalam kumpulan modul elektronik lebih tinggi daripada kumpulan modul cetak.

Perbandingan dalam kumpulan menunjukkan bahawa modul elektronik telah meningkatkan kepercayaan dan amalan guru dari awal hingga satu bulan dan dari satu bulan hingga enam bulan. Keadaan yang berbeza untuk pengetahuan, terdapat peningkatan yang signifikan dari asas hingga satu bulan, tetapi menurun dari satu bulan hingga enam bulan. Modul cetak secara berterusan meningkatkan pengetahuan dan amalan guru tetapi tidak untuk kepercayaan. Terdapat peningkatan kepercayaan guru dari asas kepada satu bulan, tetapi tiada perubahan signifikan dari satu bulan hingga enam bulan.

Berdasarkan konsistensi hasil, intervensi pendidikan menggunakan modul elektronik adalah lebih baik daripada modul cetak dalam meningkatkan kepercayaan guru, tetapi bukan untuk pengetahuan guru. Modul elektronik dan cetak mempunyai kesan positif hampir sama pada amalan guru. Intervensi menggunakan modul elektronik telah meningkatkan secara bermakna pengetahuan, kepercayaan, dan amalan guru dalam pencegahan penyalahgunaan dadah.

Kata kunci: *modul elektronik, pencegahan penyalahgunaan dadah, pengetahuan, kepercayaan dan amalan guru*

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I certify that a Thesis Examination Committee has met on 9 May 2019 to conduct the final examination of Ghozali on his thesis entitled "Effects of Electronic Module Intervention on Teachers' Knowledge, Beliefs and Practices in Drug Abuse Prevention Among Balikpapan High School Students, Indonesia" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

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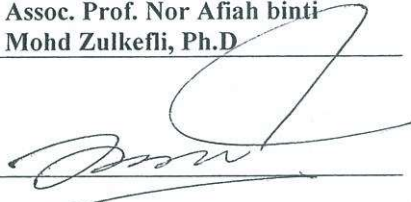
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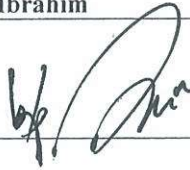
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LIST OF ABBREVIATIONS

AAS	Anabolic Androgenic Steroids
ANOVA	Analysis of Variance
ATS	Amphetamine Types Stimulant
BNN	<i>Badan Narkotika Nasional</i> (National Narcotics Board)
BPS	<i>Badan Pusat Statistik</i> (Central Bureau of Statistics)
CD	Compact Disc
E-book	Electronic book
HBM	Health Belief Model
IDU	Injecting Drug User
NEP	Needle Exchange Program
NIDA	National Institute of Drug Abuse
NPS	New Psychoactive Substances
UNGASS	United Nations General Assembly Special Session
UNODC	United Nations Office on Drugs and Crime
USB	Universal Serial Bus
WHO	World Health Organization

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