

HIV Prevention Through Drugs and Sex Education in Junior High Schools in Bandung West Java: The Teachers' Perspective

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ABSTRACT

Aim: to explore the teacher perspective on needs (in terms of knowledge, skills and curriculum content), attitudes, beliefs and self-efficacy related to teaching and implementation of a reproductive health (RH)/drug education (DE) program at their own junior high school.

Methods: one hundred and thirty-three teachers participated in a survey, from February to April 2009, measuring: socio demographic, behavioral intention, perceived behavior control, content knowledge, school climate, reproductive health knowledge and school drug education.

Results: all teachers had a high intention to teach RH and DE, especially the younger RH teachers had a high intention to teach about teenage pregnancy and sexually transmitted infections. DE teachers had a high intention facts/effects of drugs, first-time drug use dealing with peer pressure..Perceived beliefs of teachers, parents, school management and perceived self-efficacy were strong predictors for the intention of RH teaching and DE.

Conclusion: the high intention of the RH and DE teacher offers a great opportunity to build and implement a DE and RH curriculum in junior high school. Before a curriculum is developed and implemented there is a need to assess and strengthen the teacher's skills and effectiveness in teaching RH and DE.

Key words: teachers' perspective, drug education, sex education, reproductive health, HIV prevention, junior high school.

INTRODUCTION

Current estimates of total HIV infections in Indonesia range between 190,000 and 400,000 in a population of 220 Million.¹⁻⁴ In Indonesia (Papua Province excluded) drug-related risk behaviour, and more specifically unsafe injecting practices, still account for about 75% of all new HIV infections.⁵⁻⁷ About 1% of Indonesian citizens have used drugs, and 30% of those are junior high, senior high, and college students.⁸ Drug use starts relatively early in adolescence: 4% of junior high school students involvd in drug use, while every 1 out of 1000 of junior high school students has consumed drugs.⁹ Needle sharing by injecting drug users (IDUs), a very effective way of spreading HIV infection, showed an eightfold increase from 1997 to 2003, which is believed to have contributed to the steep increase of the HIV prevalence among IDU: from 16% in 1999, 41% in 2000 to 48% in 2008.¹⁰

West Java has an estimated 22,000 IDUs, of which approximately 50% are HIV-positive and 20% are incarcerated.^{11,12} Furthermore, in December 2008, West Java had 2888 reported cases of AIDS, of which 2192 (76%) were IDUs. In Bandung, the West Java provincial capital, IDUs are well educated. A recent study among 345 active IDUs showed that 69% had a senior high school diploma and 16% had a university degree.^{13,14} Unless prevention programs targeting risk groups – such as high school students who experiment with drugs – are put in place, scenario studies predict quite dramatic increases in the number of HIV infections in Indonesia.¹⁵

A survey on knowledge of sexual and reproductive health, and drugs and related (sex) risk behavior among high school students in urban Indonesia revealed that only 18% in Jakarta and 30% of the students in Surabaya were exposed to sexual and reproductive health education at school. Of the students, 99% had heard about HIV/AIDS: mostly through media: about 95% through television, 73% through news papers and 49% through teachers in both cities. Around 70% of all students in both cities were aware that condom use during sexual intercourse could prevent HIV transmission. In Jakarta 16% and in Surabaya 8% of the male students and about 5% of female students had sexual intercourse in the previous year, while 2% of the male students had sex with sex workers in the year preceding the survey.^{16,17}

In Indonesia sex and drug issues are often regarded as sensitive and life skills education (LSE) was embraced a decade ago to prevent sexual intercourse and drug related risk behavior in a culturally appropriate way and at an early stage in life. Life skills are defined as the ability of individuals to employ adaptive and positive behavior to deal effectively with demands and challenges of daily life.¹⁸ The aim of LSE is to strengthen abilities that help promote mental well-being and competence in young people as they face the realities of life.^{19,20}

Primary HIV preventive interventions for high school students especially DE are urgently needed.²¹ In order to be effective, these interventions should be well planned and evaluated and should involve all relevant stakeholders like teachers, educational experts, school principals and students in order to be effective.^{11,22-25} A good tool for a step-wise and systematic planning of an intervention is "Intervention Mapping": an evidence- and theory-based process and based preferably on an appropriate behavior change model like the Theory of Planned Behavior (TPB).²⁶⁻²⁸

The high school teacher is one of the most relevant stakeholders: he/she is an advisor, key informant and content specialist in the definition of the problem and a crucial professional in the try-out and final implementation of a school-based drug prevention curriculum. This article will explore the teachers perspective on needs (in terms of knowledge, skills and curriculum content), attitudes, beliefs and self-efficacy related to teaching and implementation of an RH/DE program at their own junior high school.

METHODS

Overview

The data for this study were collected as part of a larger project entitled IMPACT: Integrated Management

of Prevention, Control and Treatment of HIV/AIDS. IMPACT aims at increasing the capacity for evidence-based prevention and care in health services, prison services, and communities and to improve prevention, control and treatment of HIV among intravenous drug users, in Bandung (West Java, Indonesia).

Data collected in at random selected junior high schools in Bandung. Among 209 junior high schools in Bandung, this study selected 25 schools having about 15903 students and about 400 teachers. Data collection was from February till April, 2009. This article covers the first report of the results of the study so far.

Participants

In this cross-sectional study, all teachers of the 25 selected Junior High Schools were responsible for teaching Physical Education, Religious-, Science-, Civic- and Citizenship education, Counseling and Supervision and also School Health Units, were asked to participate. Teachers were excluded from the study when they were: (a) not graduated from a faculty or institute of education and teacher training and/or did not have a certificate as a teacher from National Education Department, (b) and/or had been working as a teacher for less than one year.

Procedures

Subjects were recruited from 25 selected junior high schools in five districts in Bandung. Informed consent was obtained from the participants before filling in the questionnaire. Participation was voluntary and anonymous, the questionnaire did not contain questions that would reveal respondents' identity and potential respondents were assured that only the researchers could have access to the raw data. Research assistants went to selected schools, after previously making an appointment with the school principals. After approval from the school principals to collect data from the teachers of their school, the assistants would make an appointment with the teachers individually to fill in the questionnaire.

Measures

The following variables were measured:

- Reliability cronbach alpha of all questions covering beliefs (parents, teachers and school management) and self efficacy
- Socio-demographic: teacher's age, gender, educational background,
- Reproductive Health Education: a range of topics taught by teachers and perceived as should be taught (like body changes, reproductive systems, gender differences, pregnancy, STIs and HIV/AIDS); and
- School Drug Education: a range of topics taught by teachers and perceived as should be taught (like risks and facts about smoking, drugs and alcohol).

- Behavioral Intention: an indication of a teachers' readiness to perform an effective teaching about drugs and reproductive health.
- Beliefs (teachers, parents and school management) and Self efficacy : defined as predictors of the teachers intention to teach regarding reproductive health and drug education.

Statistical Analysis

Microsoft Access 2003 was used for data entry and all statistical analyses were carried out with the SPSS Program for Windows (Version 13.0).

RESULTS

A total of 133 teachers completed the questionnaire. The Reliability of the questionnaire was very high. Cronbach alpha of beliefs (teachers, parents, and school management) and self efficacy regarding reproductive health and drug education are high; respectively RH ($\alpha=0.67; 0.88; 0.78; 0.82$) Drug Education ($\alpha=0.83; 0.86; 0.84;0.87$)

They were asked whether they had taught reproductive health (RH) and/or drug education (DE) in their high school. Six teachers only taught RH, 59 only taught DE, 59 taught both RH and DE, and 9 teachers taught neither RH nor DE. The latter group was excluded from the analyses, leaving a total of 124 teachers.

Slightly more than half of the respondents (57.3%) were female teachers, 42.7% were male teachers. The large majority (83.9%) were married, while 11.3% were unmarried, and 4.8% were widow(er)s. Mean age was 42.4 years (range 24-61 years). With respect to their educational level, 7.3% had a diploma degree, 13.7% a bachelor degree, 77.4% a master degree, and 1.6% a doctoral degree.

One quarter of respondents taught Science, 17.7% Religion, 16.9% Civic and Citizenship Education, 16.1% Physical Education, and 16.9% were involved in Guidance and Counseling. A small percentage (7.3%) taught other subjects, such as Mathematics or Environment Education.

Reproductive Health Teachers

Table 1 shows the topics that the 65 RH teachers taught in their school, and which topics they believe should be taught. Body changes in adolescence, reproductive systems, gender differences, and sexual transmitted diseases were taught by more than half of the teachers. Pregnancy was discussed by less than half, those who taught the topics of body changes in adolescence, reproductive systems, and gender differences were

significantly younger than those who did not teach these topics (all $p<.05$). There were no differences regarding topics taught between male and female teachers.

Especially for the pregnancy prevention and teenage pregnancy, the percentage of teachers that believe these topics should be taught was substantially higher than the percentage that actually teach on these topics. Whether or not topics should be taught was unrelated to gender of the teachers.

Those who thought reproductive systems and teenage pregnancy should not be taught were significantly older (both $p<.05$).

Table 1. Topics being taught in RH education and opinion which RH topics should be taught (N=65)

Topic	Being taught	Should be taught
Body changes in adolescents and the effects	84.6%	85.7%
Male & Female Reproductive Systems (Biological Differences)	70.8%	79.4%
Gender Differences (Psychosocial Differences)	69.2%	58.7%
STIs (Including HIV/AIDS)	63.1%	77.8%
Preventing Pregnancy (Including sexuality and contraception)	44.6%	71.4%
Teenage Pregnancy (How to manage pregnancy – to avoid unsafe abortion)	35.4%	54.0%
Other	6.5%	5.6%

RH teachers had a higher intention to teach about teenage pregnancy and STIs (4.9 and 5.0 respectively). Perceived beliefs of teachers, parents, school management and perceived self-efficacy are strong predictors (respectively $r=0.65, r=0.73, r=0.65, r=0.61$) for the intention to teach about RH issues. There were no gender or age differences regarding these intentions.

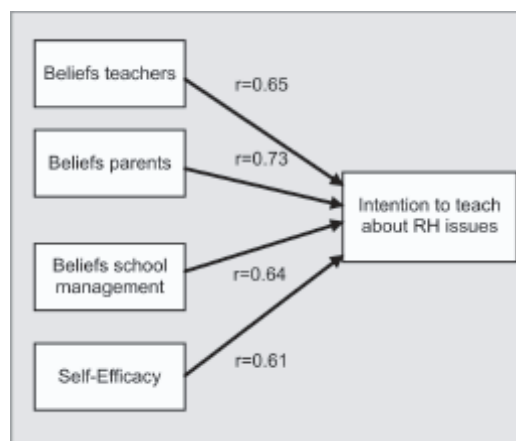


Figure 1. Predicting intentions of RH teachers

Drug Education Teachers

Table 2 shows the topics that the 118 DE teachers have taught in their school, and which topics they believe should be taught. The results show that considerably more teachers address *risks* of smoking, alcohol and drugs compared to the *facts* about smoking, alcohol and drugs. The only significant difference related to gender is that more male teachers address facts about drugs than female teachers (78.0% vs. 54.4%; $p < .01$). Teachers who addressed facts about smoking were significantly younger. For all topics the percentage of teachers who believed that topics should be taught, was slightly higher than the percentage who actually taught the topics. Interestingly, for all topics except the risks of drugs, those teachers who believed that the topic should be taught were significantly younger than those who did not believe the topics should be taught (all $p < .05$).

Table 2. Topics being taught in DE education, and opinion which DE topics should be taught (N=118)

Topic	Being taught	Should be taught
Risks of smoking	89.0%	91.5%
Risks of using drugs	85.6%	91.5%
Risks of consuming alcohol	78.8%	78.6%
Facts about smoking	68.6%	70.1%
Facts about alcohol	66.9%	78.6%
Facts about drugs (heroin, amphetamines, cannabis, ecstasy, etc)	64.4%	72.6%
Other	5.9%	5.6%

DE teachers had a high intention to teach about the reasons associated using drugs the first time, about the facts and effects of drugs, and a high intention to teach skills to resist peer pressure to use drugs (all means 5.1).

Perceived beliefs of teachers, parents, school management and perceived self-efficacy are strong predictors (respectively $r=0.59$, $r=0.53$, $r=0.45$, $r=0.45$) for the intention to teach about DE issues. There were no gender or age differences regarding these intentions.

DISCUSSION

This cross-sectional survey on the junior high school teachers' perspective on needs, attitudes, beliefs and self-efficacy related to teaching DE and RH, indicates that all teachers have a very high intention to teach either DE or RH to their junior high school students. The teachers' (self-) belief, the school managements'- and parents' beliefs, were strong positive predictors of the intention to teach DE or RH. For example the more positive the teachers' beliefs are, the more positive their

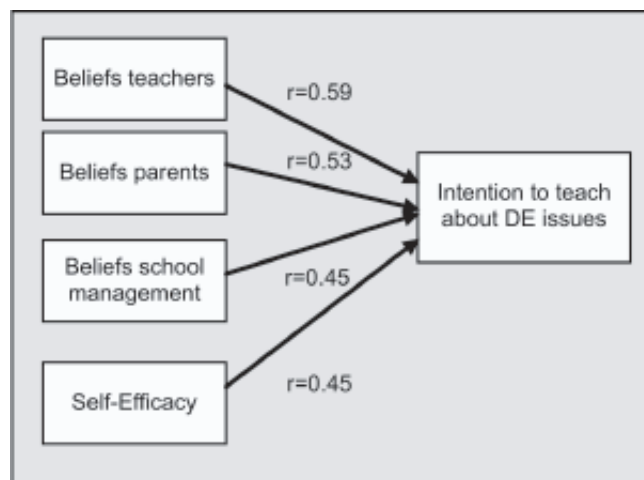


Figure 2. Predicting intentions of DE teachers

attitude towards the issues will increase their intention to teach. This is in-line with the TPB (Theory of Planned Behavior) model, where beliefs produce a favourable or unfavourable attitude towards behavior, and as a general rule, the more favourable the attitude, the stronger should be the person's intention to perform such behavior.²⁸ Also, according to the TPB model, self-efficacy, or the perceived behavioural control, regarding teaching DE or RH topics was a very strong predictor of the intention of teaching these topics.

It shows that teachers are concerned and try to balance beliefs of teachers, parents and school management regarding the issues of reproductive health and drug faced by the students. This motivates them to teach related topics to reduce the risks. Most of the surveyed teachers taught both DE and RH and there were no gender differences in the opinion whether these topics should be and were actually taught. Interestingly, there was also no difference between male and female teachers regarding topics taught on RH issues, this shows that both male and female teachers have no gender bias in teaching RH. The only significant gender difference is that more male teachers address facts about drugs than female teachers, which may be because drugs are perceived as belonging to men's world.

Moreover, there were a number of topics that were less taught than teachers thought they should be taught: pregnancy and teenage pregnancy prevention, risk of using drugs, and facts about alcohol and drugs, this could be caused by the sensitivity of the topics, lack of knowledge and skills to carry out the topics or due to a lack of personal understanding of the material to be delivered.^{29,30}

There are some interesting age differences: teachers who addressed facts about smoking were significantly younger and for all topics, except the risks

of drugs, those teachers who believed that the topic should be taught were significantly younger than those who did not believe the topics should be taught. Those teachers who thought that teenage pregnancy should not be taught in RH were significantly older but for the intention to teach RH topics, no age differences were found. Although speculative, it may be that younger teachers are closer to adolescents and better understand the needs and the realities of adolescents.

CONCLUSION

There is a high intention among all teachers to teach DE and RH. Especially younger teachers have a very high intention to teach sensitive topics they consider important (like teenage pregnancies). The high intention of the DE teacher to teach about reasons associated with first time drug use and to teach skills to resist peer pressure to use drugs, offers a great opportunity to build and implement a DE and RH curriculum in junior high schools.

This research further indicates that it seems important to also include parents and school management in the process of developing and implementing a DE and RH curriculum. Since some DE/RH teachers are also involved in student guidance and counseling, there is an opportunity to link the school workfloor with management and parents. In Indonesia there is a need for more research on the teachers' perspective on needs, attitudes, beliefs and self-efficacy related to teaching DE and RH. Before a curriculum is developed and implemented there is a need to assess and strengthen the teacher's skills and effectiveness of implementing drug- and reproductive health education.

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