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Outcome of a school-based intervention to promote life-skills among young people in Cambodia

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ABSTRACT

Background: Most of the school-based interventions to prevent suicide are from high income countries and there is a need for evidence based interventions in resource-poor settings. The aim of this study is to evaluate the outcome of a school based intervention to reduce risk factors for suicide among young people in Cambodia by promoting life skills.
Method: Six classes were randomly selected from two schools each, one designated as experimental and the other as control school, respectively. In experimental school 168 young people (M = 92, F = 76) received 6 sessions of life skills education and in the control school 131 students (M = 53, F = 78) received three general sessions on health. We looked at the pre-post differences on Life-Skills Development Scale Adolescent Form (LSDS-AF)- and Youth Self-Report (YSR) questionnaire to measure the effect size (ES) from the intervention after 6 months. We analyzed the data by stratifying for gender and for those who reported more severe suicidal expressions at baseline (high-risk group).
Results: The girls showed improvement in Human Relationship (ES = 0.57), Health Maintenance (ES = 0.20) and the Total Life Skills Dimensions (ES = 0.24), whereas boys with high-risk behavior improved on Human Relationship (ES = 0.48), Purpose in Life (ES = 0.26) and Total Life Skills Dimensions (ES = 0.22). Effect size for YSR-syndrome scores among all individuals showed no improvement for either gender. Among high-risk individuals boys had a small to moderate effect size from intervention on Withdrawn/Depressed (ES = 0.40), Attention problems (ES = 0.46), Rule breaking behavior (ES = 0.36), Aggressive behavior (ES = 0.48) and Externalizing syndrome (ES = 0.64).
Conclusion: Promoting life skills in schools may enhance the overall mental health of young people, indirectly influencing suicide, particularly among boys with high-risk behavior in Cambodia.

1. Introduction

Suicide ranks as one of the leading causes of death among young people in many countries in the world and about 100,000 young people take their own lives every year (WHO, 2007). In high income countries such as United States there is 8% increase of suicide between 2000 and 2004, particularly in the middle-school aged children which is alarming (Centers for Disease Control and Prevention, 2004). Singapore, a high income country in Asia, reports increase of suicide rate among persons between 15 and 24 years of age, similar to the Western countries (Ung, 2003). There are no reliable figures on suicide among young people from low and middle income countries (Hawton et al., 2012), especially with post-conflict background (Gosh et al., 2004). Young people in the age group of 15–24 in post conflict and transitional countries such as Cambodia are vulnerable for high-risk behaviors and suicide (Somasundaram, 2007), particularly in the background of lack of institutional structures to help young people (Patel et al., 2007a,b). A cross-cultural study comparing Nicaragua and Cambodia reported slightly higher prevalence of overall suicidal expressions in the former, but found no difference in suicidal plans and attempts among young people (Obando Medina et al., 2012). Young people in Cambodia report frequent high risk behaviors such as substance abuse, sexual abuse and early sexual experience (Ministry of Education Youth and Sports Cambodia, 2010), which are highly correlated with suicidal behavior (Dube et al., 2001). The

Abbreviations: ASEBA, Achenbach System of Empirically Based Assessment; ATTS, Attitudes Toward Suicide; CCAMH, Center for Child and Adolescent Mental Health; LMIC, Lower and Middle Income Countries; LSDS-AF, Life Skills Development Scale-Adolescent Form; YSR, Youth Self Report.

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decades of civil strife following the genocidal Khmer Rouge regime had led to collective trauma, with significant impact on the mental health of young people (Mollica et al., 1998). Youth risk behavior survey from Cambodia in the age group of 11–18 years revealed that 19% of them expressed suicidal thoughts and 14% made suicidal plans. Among those who had suicidal thoughts, 39.5% had attempted suicide one-time and 12.4% more than three times (Ministry of Education Youth and Sports Cambodia-Pedagogical Research Department, 2004). There is a huge service gap in low and middle-income countries (LMIC), and it is vital to implement cost-effective community and school based programs to treat as well as prevent mental health problems and suicidal behavior among young people (Patel et al., 2007a,b; Vijaykumar, 2007). A study from Cambodia, highlighted the importance of taking into consideration gender difference in suicidal expressions among young people while planning school-based suicide prevention strategies (Jegannathan and Kullgren, 2011).

Community and school based interventions are more relevant in LMIC countries that face chronic shortage of mental health professionals (Patel et al., 2007a,b). Schools present a promising setting to implement comprehensive mental health promotion and suicide prevention programs as majority of young people spend one-third of the day in the school campus, where they can be reached (Joiner, 2009; King, 2001). The school based suicide prevention programs are categorical or general, based on whether the intervention is specific to suicide prevention or addresses overall mental health problem, and they can be further classified as universal, selective or indicated depending on whether the whole population, specific subgroups or individuals are involved, respectively (Kalafat, 2003). The students taking part in the indicated program are likely to feel stigmatized and it is often difficult to reach sub-populations under selective program (Burns and Patton, 2000), while categorical programs alone were found to be insufficient to serve the purpose (Kalafat, 2003). Universal intervention targeting the whole population seems to be the favored approach among school mental health professionals, with various components such as awareness programs, screening, skills-training, gate-keeper training and peer-mediated programs (Portzky and van Heeringen, 2006). Hawton et al. (2012), consider school based universal programs to improve the psychological well-being and help seeking behavior of the young people, but did not find evidence for reduction of suicidal behavior. There is no conclusive evidence on the types of intervention that are most efficacious in suicide prevention in school-setting (Guo and Harstall, 2002). King (2001) underscores the importance of continuing training of school personnel and evaluation of the school based suicide prevention programs. Most of the school based mental health intervention and studies are from high income countries (Robinson et al., 2013) and there is a wide 'research-gap' on the outcome of school based interventions among young people in low and middle income countries.

To the best of our knowledge, this is the first controlled study from a post-conflict, low income country that evaluates the outcome of universal skill-training program aimed at reducing risk factors for suicide among young people with specific focus on gender and individuals reporting serious suicidal expressions.

2. Method

2.1. Setting

Cambodia has a large number of young people as 42% of the population of 14.7 million is below the age of 15 years. The GNP per capita is 1000 USD, poverty rate 19.8% and Cambodia ranks 138 in human development index (Cambodia Millennium Development Goals, 2012). There are 95 men per hundred women and the adult literacy rate is 74%. While the primary school net enrolment is 96% during 2008–2011, the secondary school net attendance comes down to 45% for the same period (UNICEF-Cambodia-Statistics, 2013). The revival of educational system had been a challenge, as it was dismantled during the Khmer rouge era, and is gradually being rebuilt since the 80s by the Royal Government of Cambodia (Dy, 2004). This study was conducted at Takhmau, the headquarters of Kandal Province which has approximately 58,300 inhabitants and lies 11 km south of Phnom Penh, the capital of Cambodia. The two higher secondary schools, Hunsen Srey Pheap and Hunsen Takhmau from which we collected data are government schools, with similar characteristics in terms of location, structure, the number of teachers, syllabus and socioeconomic and cultural background of students. The students in the two secondary schools are predominantly from Takhmau, a suburban area, and approximately 15–20% of the students come from nearby villages.

2.2. Instruments

In this study, we used the following instruments: Attitude Toward Suicide (ATTS), Youth Self Report (YSR) and Life Skills Development Scale-Adolescent Form (LSDS-AF) which give reliable data on suicidal expressions, mental health problems and life skill dimensions, respectively. There is robust evidence that mental health problems, in particular internalizing syndromes (withdrawn depressive states, somatic complaints), are strongly associated with suicidal behavior among adolescents (Liu et al., 2005) while drug abuse, impulsivity and externalizing syndrome also correlate with suicide (Javdani et al., 2011). We used the scores of YSR syndrome and Life Skill Dimensions as outcome variables in this study instead of suicidal expressions as they are less likely to function as outcome measure due to low prevalence rates.

The mental health professionals working at CCAMH translated ATTS and LSDS-AF into Khmer after adapting it to the local context through series of discussions, and field-tested them. Contextually discordant or inappropriate statements were either omitted or changed for cultural congruence; for example statement such as, "As a passenger or driver in an automobile, I always use my seat belt" was changed to "I always wear a helmet when I drive my motorbike", as young people in Cambodia drive motorbikes and not cars.

2.2.1. The "Attitudes Toward Suicide" (ATTS)

The ATTS, a semi-structured questionnaire has three parts and the first elicits information on exposure to suicidal expressions among significant others (parents, siblings, partners, relatives, and friends). The second part explores attitudes toward suicide and probes common beliefs and misconceptions on suicide. The third part, which is the focus of this study, is about the respondent's own suicidal expressions (meaning of life, life-weariness, death thoughts, death wishes, suicide ideation, suicide plans, and suicide attempts) during the past year. The psychometric properties of the instrument have been validated by previous studies (Renberg, 2001; Renberg and Jacobsson, 2003).

2.2.2. Youth Self Report (YSR)

The YSR, a component of the Achenbach System of Empirically Based Assessment (ASEBA), provides data on a broad spectrum of emotional, behavioral problems and competencies of young people in the age group of 11–18 years. It is a self-administered, semi-structured questionnaire, consisting of 112 items on emotional and behavioral profile and is scored Likert-style: 0 – not true, 1 – somewhat or sometimes true, 2 – very true or often true. The following syndrome scales are constructed based on empirical findings that comprises items that tend to occur together: Anxious/depression, Withdrawn/depression, Somatic complaints, Social