

Original Research



Knowledge and attitudes on unsafe abortion among the undergraduates of state universities in Western Province, Sri Lanka

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DOI: <https://doi.org/10.4038/jccpsl.v24i2.8149>

Received on: 16 June 2018

Accepted on: 28 June 2018

Abstract

Background: Abortion is legally permitted in Sri Lanka only to save mother's life. A great majority of undergraduates reside away from home and are vulnerable to risky behaviour. However, their knowledge and attitudes on abortion are scarce in Sri Lanka.

Objective: To describe the knowledge and attitudes on unsafe abortions among undergraduates in the state universities of Western Province, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 1575 second and third year undergraduates using stratified cluster sampling of the selected universities. Pre-tested self-administered questionnaire was administered to assess socio-demographic factors, knowledge and attitudes on unsafe abortion. Responses to the knowledge and attitude questions were scored and graded. Percentage of knowledge categories and attitudes were calculated. The associations of knowledge categories with selected variables were assessed and reported as odds ratio (OR).

Results: Of the respondents, the majority (n=839, 53.3%) had good knowledge on unsafe abortion while 30.5% (n=480) had satisfactory knowledge and the minority (16.3%) had poor knowledge. Females (n=509, 55%) had more good knowledge than males (n=329, 51%; p>0.05). Also, those who studied in Bio-Science stream (n=174, 70.2%; p<0.001) and had their secondary education at mixed schools (n=351, 54.4%; p>0.05) had more good knowledge than the other categories. The majority (n=1074, 68.5%) agreed that legal restrictions would drive people to unsafe abortion while making abortion services through the government health facilities could increase inappropriate sexual behaviour (n=998, 63.7%). Only a very few (n=111, 7.1%) of the undergraduates agreed that abortion was a convenient form of contraception while 47.7% (n=747) agreed abortion to be restricted to save mother's life. The majority (n=833, 53.2%) agreed that it should be a right of a pregnant woman to decide whether she wants an abortion or not.

Conclusion: A majority of undergraduates had good knowledge on unsafe abortion. Most of the undergraduates did not prefer to fully liberalize abortion policies due to inappropriate usage, yet acknowledged it is a right of a pregnant mother.

Key words: abortion, attitudes, knowledge, reproductive, undergraduates

Introduction

Reproductive health can be described as being in good health with regard to all matters relating to the reproductive system, its functions and processes (1). According to the WHO, unsafe abortion is “termination of an unintended pregnancy either by person lacking the necessary skills or in an environment lacking the minimal medical standard or both” (2). Unsafe abortion is one of the four main causes of maternal mortality and morbidity globally (3). Around 13% maternal deaths in 2008 were due to unsafe abortions. In Sri Lanka, the contribution was 3.5% in 2015 (4). An estimated 21.6 million unsafe abortions took place worldwide in 2008, almost all in developing countries (3).

A study carried out among female undergraduates in Nigeria found that 83% had good knowledge on complications on abortions (5). Another study found that 63.8% of female undergraduates had good knowledge on complications of abortion in Nigeria (6). A study from Ethiopia detected that a low level of knowledge and attitudes on medical abortion among female undergraduates (7).

Knowledge assessment on unsafe abortions was scarce among undergraduates in Sri Lanka. One study found that around 96% of participants were not aware of adverse outcomes of abortion among Sri Lankan women seeking termination of pregnancy (8). Though 91% of them thought that induced abortion was immoral, 94% did not know that it was an unlawful act (8). According to another study among adolescents in Sri Lanka, knowledge on risks involved in induced abortion was less than 45% (9). Abortion is legally permitted in Sri Lanka only if it is performed to save the mother's life (10).

A great majority of undergraduates are unmarried. Many of them have begun to reside independently away from their families. Therefore, undergraduates comprise a high risk group exposed to a wide range of risky behaviours. The objective was to describe knowledge and attitudes on unsafe abortion among undergraduates in state universities of the Western Province.

Methods

A descriptive cross-sectional study was conducted in four state universities in Western Province namely University of Colombo, University of Sri Jayewar-

denepura, University of Kelaniya, and University of Moratuwa. We recruited 1575 undergraduates using multistage stratified cluster sampling technique with probability-proportionate to the size. We excluded the undergraduates in first year due to less familiarity to new environment, students from foreign countries due to their different socio-cultural background and clergymen undergraduates due to the sensitive nature of the selected subject. Fourth and fifth year students were also excluded as these advanced years are not conducted in every course. The detailed methodology has been described elsewhere (11).

A self-administered questionnaire was used for data collection. It included knowledge and attitudes on unsafe abortion. The overall knowledge on unsafe abortion was assessed by seven statements on unsafe abortion. One mark was given for each correct answer and zero mark for incorrect and ‘do not know’ answers. The total marks obtained were made in to percentages. More than 75% was categorized as good knowledge; 50-74% as satisfactory; and less than 50% as poor knowledge. The attitudes on unsafe abortion were assessed by eight statements each consisting of five responses: strongly agree, agree, neutral, disagree and strongly disagree. Informed written consent was obtained from the participants. Ethics clearance was taken from the Ethics Review Committee, Faculty of Medicine of the University of Kelaniya.

Data were analysed using the Statistical Package for Social Sciences (SPSS) software version 20. Knowledge categories and attitudes were expressed as frequencies and percentages. Associations of knowledge on abortion with selected variables were assessed with odds ratio (OR) and 95% confidence interval (CI). Multiple logistic regression was applied to detect association.

Results

A vast majority of the sample were unmarried ($n=1551$, 98.5%) and were residing in a university hostel or boarding place ($n=1082$, 68.7%). Only 248 (15.7%) were Bio-Science graduates. A majority ($n=1535$, 97.5%) of the respondents were aware of unsafe abortion. More than 75% of students' answers were accurate on the four statements on unsafe abortion (Table 1). A considerable amount of students (42.8%) were not aware that unsafe abortion can lead to subfertility.

Table 1. Frequency distribution of the responses given by undergraduates on the statements of unsafe abortion (n=1575)

Statement on abortion	No. correctly answered (%)
Unsafe abortion is a simple risk free procedure	1386 (88.0)
Unsafe abortion can result in death	1401 (89.0)
Unsafe abortion can lead to haemorrhage	1213 (77.0)
Unsafe abortions can lead to sub fertility	674 (57.2)
Unsafe abortions can lead to uterine infections	1091 (69.3)
Abortion is not legally allowed in Sri Lanka except to prevent death of a mother	1000 (63.5)
There are illegal places where abortions are carried out in the country	1381 (87.7)

A majority (n=839, 53.3%) of respondents had ‘good’ knowledge on unsafe abortion while 30.5% (n=480) had ‘satisfactory’ knowledge and minority (n=256, 16.3%) had ‘poor’ knowledge. Females (55%, n=509) were marginally higher in having ‘good’

knowledge compared to males (n=329, 51%). Those who studied in Bio-Science stream (n=174, 70.2%) and had their secondary education in mixed schools (n=351, 54.4%) had more ‘good’ knowledge than the rest. The difference seen among study streams was statistically significant ($p<0.001$) (Table 2). This was confirmed by multiple logistic regression analysis (results not shown).

Responses were taken for eight statements regarding attitudes on unsafe abortion. A majority of undergraduates agreed that legal restrictions drive people to pursue unsafe abortion (n=1074, 68.6%) while making abortion services through government health facilities could increase the inappropriate sexual behaviour (n=998, 63.7%). In concurrence, the majority disagreed that abortion could be considered as a more convenient form of family planning than contraceptives (n=1203, 76.8%) and that it should be freely available in the country on demand to anyone who needs it (n=868, 55.4%). Further, the majority disagreed that induced abortion should not be allowed under any of the circumstances (n=786, 50.2%) and agreed to be restricted to save mother’s life (n=747, 47.7%). A majority (n=833, 53.2%) agreed that it should be a right of a pregnant woman to decide whether she wants an abortion or not. All the accounts with undergraduates’ responses are presented in Table 3.

Table 2. Distribution of the knowledge on unsafe abortion related to sex, study streams and school type among the undergraduates (n=1575)

Variable	Knowledge on unsafe abortions, No. (%)				Odds Ratio (95% CI) ³
	Good	Satisfactory	Poor	Total	
Sex¹					
Male	329 (51.0)	193 (29.9)	123 (19.1)	645	0.85 (0.7-1.04)
Female	509 (55.0)	284 (30.7)	133 (14.4)	926	Reference
Study Stream					
Bio Science	174 (70.2)	49 (19.8)	25 (10.1)	248	2.34 (1.74-3.14)
Art	296 (57.4)	143 (27.7)	77 (14.9)	516	Reference
Commerce	188 (44.3)	159 (37.5)	77 (18.2)	424	
Mathematics	181 (46.8)	129 (33.3)	77 (19.9)	387	
School type²					
Mixed	351 (54.4)	181 (28.1)	133 (20.6)	645	1.04 (0.83-1.3)
Boys only	135 (51.5)	84 (32.1)	43 (16.4)	262	Reference
Girls only	189 (54.8)	116 (33.6)	40 (11.6)	345	

¹Missing data=4; ²Missing data=323³CI=confidence interval (For application of statistics, satisfactory and poor knowledge categories were amalgamated as ‘less’ knowledge; school type as mixed and non-mixed schools; and study stream as bio-science and non-bio-science)

Table 3. Frequency distribution of the responses of undergraduates on attitudes on abortion

Statement	Attitudes on abortion, No. (%) ¹		
	Agree	Neutral	Disagree
A pregnant woman should have the right to decide whether she wants an abortion or not	833 (53.2)	256 (16.3)	478 (30.5)
Induced abortions should be restricted to save mother's life	747 (47.7)	514 (32.8)	306 (19.5)
Induced abortions should not be allowed under any of the circumstances	123 (7.8)	658 (42.0)	786 (50.2)
Making abortion services through the government health facilities could increase the inappropriate sexual behaviour among people	998 (63.7)	234 (14.9)	335 (21.4)
Induced abortions should be freely available in the country on demand to anyone who needs it	240 (15.3)	459 (29.3)	868 (55.4)
Induced abortions should be freely available in the country on demand only to the married couples	514 (32.6)	452 (28.7)	601 (38.2)
Abortion could be considered as a more convenient form of family planning than contraceptives	111 (7.1)	253 (16.1)	1203 (76.8)
Legal restrictions drive people to unsafe abortions and fall in to trouble	1074 (68.6)	241 (15.4)	250 (16.0)

¹Original Likert scale was changed for easy understanding. Both 'strongly agree' and 'agree' were considered as 'agree' and both 'strongly disagree' and 'disagree' considered as 'disagree'.

Discussion

In this study, a majority (53.3%) of respondents had 'good' knowledge on unsafe abortion while the minority (16.3%) had 'poor' knowledge. A National Survey conducted in 2004 among Sri Lankans in schools and out-of-school adolescents aged 14-19 years revealed that the percentage of good knowledge was lower than our study (8). However, the assessment scope and method were different from our study. Another study reported that the majority (83.3%) of female students of senior secondary schools had good knowledge of abortion (12). However, the cut-off for defining good knowledge was 50% or more compared to our study which had a knowledge score of 75%. We also found that female undergraduates had marginally higher knowledge than males. According to a study carried out among female undergraduates in Nigeria, it was observed that most of the undergraduates had good knowledge on complications on abortion (5), while two other studies in Uganda reported that the same was higher among female youth (13-14). One Ethiopian study reported that the knowledge on medical abortion among undergraduates was relatively low (7).

In our study, we detected that knowledge on complications on unsafe abortion was in the range of 57-89% with regard to several complications. In contrast, one Sri Lankan study reported that around 96% of the women seeking termination of pregnancy were not aware of adverse outcomes (8). Another Sri Lankan study reported that 85% of the residents in Colombo had known that illegal abortion can result in many complications including death (15).

We found that 63.5% of undergraduates knew that abortion is not legally allowed in Sri Lanka except to prevent death of mother. One Sri Lankan study reported that only 34% of residents in the district of Colombo had known induced abortion was legal in Sri Lanka under similar circumstances (15). Another Sri Lankan study reported that 94% of women seeking termination of pregnancy did not know that it was an illegal act (8). One study reported that 40% of women of reproductive age in Zambia knew that abortion was legally permitted in the extreme situation where pregnancy threatens the life of mother (16).

According to our study, majority of the undergraduates agreed that legal restrictions drive people to pursue unsafe abortion (68.6%) and that making abortion services through the government health facilities could increase the inappropriate sexual behaviour among people (63.7%). Further, majority disagreed that induced abortion should not be allowed under any of the circumstances (50.2%) and agreed to be restricted to save mother's life (47.7%). Two studies also reported that attitudes towards abortion were more conservative (15-16). According to a study conducted in Uganda among female youth, more positive attitudes were noted towards induced abortion. In contrast, another study reported that majority of social-science undergraduates were negative towards induced abortion (7). Consistent with these findings, another study reported that the attitudes of female students of secondary schools in Nigeria poorly supported induced abortion (12).

We enrolled a representative sample of undergraduates from four large universities in Sri Lanka. Even if our study used a self-administered questionnaire as it would be the best to assess knowledge and attitudes, owing to the sensitive nature of the topic, underreporting of the responses was unavoidable. Further, research is also recommended extending the scope of the knowledge and attitudes aspects of unsafe abortions.

Conclusions and Recommendations

In conclusion, undergraduates had good knowledge on unsafe abortions. Most of the undergraduates wanted not to fully liberalize abortion policies due to inappropriate usage and stated that it is merely a right of a pregnant mother.

Public health implications

Most of the undergraduates have sufficient knowledge on unsafe abortions and their complications. Attitudes on unsafe abortion were favourable. Knowing their knowledge and attitude is important in making public health policies.

Author Declarations

Competing interests: The authors declare that they have no competing interests.

Ethics approval and consent to participate: Ethics approval was obtained from the Ethics Review Committee of the Faculty of Medicine, University of Kelaniya (Reference No. P202/12/2013). Informed written consent was obtained from participants.

Funding: The Medical Research Institute of the Ministry of Health, Sri Lanka funded for the data collection of the study.

Acknowledgements: All the undergraduates who participated in the study and the staff of universities, data collectors and members of the Board of Study in Community Medicine, Postgraduate Institute of Medicine.

Author contribution: Both authors have contributed equally to the design the study. UP and CA analysed and interpreted the data. UP was responsible for the conduct of the literature review and implementation of study and a major contributor in writing the manuscript. All authors read and approved the final manuscript.

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