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Mental Health Literacy and Associated Factors among Secondary School Students in Bhaktapur, Nepal

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ABSTRACT

Introduction: Mental health problems like depression and anxiety are the leading contributors to the global burden of disease. Mental health problems are common in adults and children in Nepal, accounting for 13.2% and 11.2% of the population while only 21% sought for treatment. Evaluation of mental health literacy is important in assisting the development of intervention and policies toward preventing mental health problems. This study aimed to assess the mental health literacy among the secondary school students of Bhaktapur municipality, and identify the factors associated with it.

Methods: A cross-sectional descriptive study was conducted in December 2019 among 468 students of grade11 and 12. We selected the study sample using a two-stage cluster sampling technique. A self-administered questionnaire was used for the data collection using a modified mental health literacy scale. Collected data were entered in EpiData 3.1 and SPSS 17.0. Descriptive analysis was done to find out the level of MHL. Variables that were found statistically significant ($p<0.05$) in the univariate analysis were further analyzed using multiple linear regression method. Ethical approval was taken from the Institutional Review Committee of the Institute of Medicine, Nepal.

Results: The participants exhibited moderate level of mental health literacy score of 110.9 8 (SD=±11.11). This study shows that age below 18 years (β= 2.13, 95% CI= 0.093to4.164), science faculty (β= 6. 41, 95% CI= 3.71to8.57), internet source for health information (β=2.31, 95% CI= 0.21to4.41), part-time job (β= -6.78, 95% CI= -9.30to -4.25) and mental distress (β= -3.37, 95% CI= -5.27to -1.47) were significantly associated with MHL in the students.

Conclusions: Awareness of existing MHL levels in secondary school students is crucial for the evaluation of targeted educational interventions and for the further development and implementation of these interventions in the future. This study also emphasizes the need for school mental health programs and to include mental health literacy in the school curriculum.

Keywords: Mental health literacy, Health literacy, school students

BACKGROUND

Mental health problems are commonly occurring in many countries throughout the world. (1) Globally, an estimate of more than one in ten people is living with mental disorders while they remain widely under reported. (2) In South-East Asia the prevalence is even alarming, accounting for 122 per 1000 population. (3) A study in Nepal, revealed that the prevalence of mental disorders is even higher among adults and children which accounts for 13.2% and 11.2% respectively while only 21% of the adolescents aged 13 to 17 years with any form of mental disorders sought treatment. (4)

The World Health Organization (WHO) has identified an urgent need to accurately recognize mental illness

and implement proven and cost-effective. MHL is one such effective intervention strongly advocated by WHO. MHL can be more effective in practice, especially in school settings, by integrating it into the daily activities. Engaging students through interactive programs, peer discussions, and coping strategies can help them better identify and manage their mental health problems. (5) Mental health literacy refers to knowledge and attitudes regarding mental health that aid in recognition, management and prevention of mental health issues. (6) Interventions targeted at educating the public on mental illness and the benefits of seeking help have demonstrated lasting results in the areas of suicide and depression reduction. (7)

The national adolescents' development and health strategy (NADHS) 2018 also identifies psychosocial, emotional and mental health development and promotion as key intervention areas that include mental health in the school curriculum, recognizing disorders, anxiety, suicidality, skill development as key activities. (8) In Nepal, few studies on knowledge and attitudes towards mental illnesses have been conducted in specific populations like nurses, medical students and adults. (9,10) MHL can play a crucial role in reducing the stigma, identifying early interventions and promoting resilience associated with mental health issues in Nepal. Educating students about mental health can foster a more understanding and supportive environment. However, there are no published studies on factors that affect MHL outcome, including all its attributes.

This is the first study on the mental health literacy of students at secondary school in Nepal. This study looks beyond their ability to recognize mental health disorders and their opinions about them and fill the knowledge gap regarding the existing situation of mental health literacy especially focused on the secondary school students along with an assessment of predictors of mental health literacy.

METHODS

A descriptive cross-sectional study was conducted in three secondary schools of Bhaktapur municipality. Bhaktapur municipality is selected for the study as it lies in the core of the Kathmandu valley at the distance of 8 miles from the capital city, Kathmandu, which is the center of attraction for the higher level of education. The pilot study of National Mental Health Survey conducted in 2018 that included Bhaktapur districts showed that 11.2% adolescents of age 13 to 17 years had some form of mental disorders. Similarly, suicidality was also present among 8.7%. The study population was students of grade11 and 12. Data collection was done among 468 students from 26th December 2019 to 19th January 2020. Students present on the day of data collection were included in the study. The sample size was determined by using the formula for one sample situations with known proportion/prevalence with specified absolute precision i.e. n= z2 1-α p (1-p) /d2. A two-stage cluster sampling method was used, where at the first stage, out of total of 8 secondary schools, 3 schools were selected through Probability Proportionate to Size (PPS) sampling technique. In the second stage, from a total of 112 sections simple random sampling was used to select 4 to 5 class/sections from each school irrespective of faculty and grade. From the selected class/sections, only one student refused to participate in the study.

Study tools and data collection

A self-administered questionnaire technique was followed to collect data from students in the randomly selected classes/sections. The questionnaire was based on a literature review and divided into two main sections. The first section included information on socio-demographic characteristics and self-reporting questionnaire-20 (SRQ-20) from WHO 1994 to identify the presence of mental distress among participants. The SRQ-20 is used as a case-finding instrument as well. The items are scored using 0(meaning the symptom is not present) to 1 (symptom is present); the maximum score is 20. The literature suggests that the cut-off score for 'normal function' versus 'mental health problems' ranges from 5 to 11. The cut-off score used in this study is 6 as a previous study by Crowne T. et al. in 2014 used the same cut-off score. (11)

The second section included the validated tool i.e. Mental health literacy scale (MHLS) adapted after obtaining permission from the author. The modified MHLS replaced the questionnaire on knowledge on recognition of disorders like social phobia, personality disorder, dysthymia, agoraphobia, bipolar disorder with the questionnaire on Psychosis, suicidality, epilepsy and intellectual disorders. The modification was done based upon literature review and pilot survey of in mental health status in Nepal by NHRC in 2018. The mental health conditions included in the questionnaire were the common mental health problems prevalent among the adolescents in that pilot survey.

Similarly, knowledge on risk factors was also modified by the researcher by replacing the questions because in Nepal there is no national-level prevalence survey on mental health so far to give correct responses to the questions on the original scale. So, some questions in 1-15 were modified after intense literature review and pretesting was done for contextualization in the Nepalese context. The tools were finalized through appraisal and verification by research supervisors and suggestions from experts. Language expert was consulted during translation for comprehensibility and simplicity of language. Pretesting of the questionnaire

tool of each language was done among 55 students of similar age groups and grades of a school from a non-study area. The tool was revised based on the pre-test. The internal consistency of each subscale of the Likert scale was assessed using Cronbach's alpha (alpha) of 0.7. Data collection was done by a trained team of researchers.

After obtaining ethical approval from the Institutional Review Committee (IRC) of IoM and reference letter from Municipal education office, each school was visited for coordination and data collection. The objectives and sampling process were clearly explained to the principal and coordinators along with the ethical considerations. The required number of classes from each school was selected by lottery method. After the approval from the concerned school authority, students were briefed about the study objectives and requirement of parental written consent for students below 18 years of age. On the second visit, students who returned the approved written consent form were allowed to participate in the survey and those who were not interested in participating were requested to sit separately in the same classroom.

Data analysis

The collected data was systematically coded and entered in EpiData version 3.1. The entered data was exported to IBM SPSS version 17 where checking, cleaning, editing and analysis of the data was performed. Descriptive analysis was done to report frequency, percentage, mean, median and Standard deviation. Students t-test was done to understand the relationship between independent variables and MHLS measures. Variables that were found statistically significant ($p<0.05$) during the univariate analysis were checked for multicollinearity. A test of multicollinearity was performed to identify the correlation and strength of correlation between the independent variables. Multicollinearity was detected with the help of tolerance and its reciprocal called variance inflation factor (VIF). The value of tolerance less than 0.1 and the value of VIF 10 and above was considered problematic, thus identified as the existence of multi-collinearity. Multiple linear regression was done to determine significant factors associated with mental health literacy. For this enter method was used, and an alpha level of 0.05 was considered as the criterion for statistical significance.

RESULTS

Socio-demographic characteristics of respondents

Most of the students participated in this study are female being 264. The mean age of the participants was 16.91 years (SD=1.1 years, range=14-21 years). Two third of the students were in Grade11 (67.3%). The majority of the students (58.1%) belonged to science. The most widely used source of health information by the students was the internet (71.2%). Only 14.5% of students participated in mental health programs. Very few participants reported personal history of mental illness (1.7%) while most of them had some form of mental disorders (42.7%). Family history of mental illness was reported by 4.7% of the students. Complete socio-demographic information is presented in Table 1.

Table 1: Socio-demographic characteristics of respondents

Characteristics	Number	(%)
Age Group		
<18 years	350	74.8
≥18 years	118	25.2
Gender		
Female	264	56.4
Male	204	43.6
Grade		
Grade 11	315	67.3
Grade 12	153	32.7
Faculty		
Science	272	58.1
Management	90	19.2
Humanities	89	19.0
Education	17	3.6
Ethnicity		
Janajaati	292	62.4
Brahmin/Chhetri	139	29.7
Other disadvantaged *	37	7.9
Religion		
Hindu	368	78.6
Buddhist	85	18.2
Christian	12	2.6
Others(unspecified)	3	0.6
Smoking		
Never	457	97.6
Ever smoked	11	2.4
Alcohol consumption		
Never	381	81.4
Ever consumed	87	18.6
Substance abuse		
Never	462	98.7
Ever consumed	6	1.3
Source of health information		
Internet	333	71.2
Television	61	13.0
Books	33	7.1
Radio	21	4.5
Newspaper	11	2.4
Health magazines	8	1.7

Participation in mental health program and workshop	400	85.5
No	68	14.5
Yes		
Personal history of mental illness		
No	460	98.3
Yes	8	1.7
Self-reported Mental distress (SRQ-20 tool)	268	57.3
No	200	42.7
Yes		
Family history of mental illness		
No	446	95.3
Yes	22	4.7
Educational status of father		
Illiterate	29	6.2
Can read and write	110	23.5
Primary education	45	9.6
Lower secondary	51	10.9
Secondary	139	29.7
Higher secondary and above	94	20.1
Educational status of mother		
Illiterate	130	27.8
Can read and write	121	25.9
Primary education	52	11.1
Lower secondary	45	9.6
Secondary	84	17.9
Higher secondary and above	36	7.7

Mental health literacy scale

The mean score for the mental health literacy scale was 110.98 (SD=±11.11, minimum=78.00 and maximum=143.00, 95% CI=109.97-111.99. Skewness (-0.172, SE= .113), Kurtosis (.265, SE=.225). Shapiro-Wilk test was performed and was significant at 95% CI, p> 0.05 that means the data is normally distributed.

Mental health literacy in each dimension of MHL

Above 80% of the students could identify disorders like Generalized anxiety disorder, depression, suicidality and psychosis (Table 2: Ability to recognize mental disorders) being likely as per the symptoms given in the questionnaire. However, the knowledge on the risk factors was limited. Where most of the students (52%) perceived mental illnesses are caused by wrong thinking. (Table 2: Knowledge of riskfactors of mental disorders). Positive thinking, good interpersonal relationship and healthy lifestyle will help to prevent mental illness are perceived by 89% as remedies for avoiding mental illnesses. Also, the same percentage of students feel comfortable seeking help from health care providers for any information on mental illnesses. Similarly, 55 % of the participants showed willingness to make friends with people with mental illnesses. Results pertaining to knowledge and attitude of mental health in each dimension s of MHL are as shown in Table 2.

Table 2: Mental health literacy in each dimension of MHL (n= 468)

	Overall participant responses for each MHL item	
MHL categories	**Likely/very likely n (%)**	**Unlikely/Very unlikely n (%)**
Ability to recognize mental disorders		
Generalized anxiety disorder	394(84.2)	74(15.8)
Depression	402(85.9)	66(14.1)
Suicidality	387(82.7)	81(17.3)
Psychosis	420(89.7)	48(10.3)
Mental retardation	334(71.4)	134(28.6)
Drugs dependence	363(77.6)	105(22.4)
Epilepsy	305(65.2)	163(34.8)
Knowledge of risk factors of mental disorders		
Mental illness is caused by wrong thinking*	244(52.1)	224(47.9)
All mental illnesses are caused by external stressors*	264(56.4)	204(43.6)
If a family member has mental illness, then other members also may have the illness	227(48.5)	241(51.5)
Knowledge of professional help available		
If someone is threatening to hurt someone or themselves, is it okay for a counsellor to tell and get help from others?	334(71.4)	134(28.6)
If your problem is not life-threatening, is it okay for a counsellor to tell others about your problem because they want others to help you too? *	252(53.8)	216(46.2)

	Helpful/ very helpful n (%)	Unhelpful / very unhelpful n (%)	
Knowledge about self-help treatments			
Getting better sleep helps someone who is feeling nervous, anxious, or depressed?	405(86.5)	63(13.5)	
Avoiding all activities or situations that make a person nervous or depressed will help them feel better? *	242(51.7)	226(48.3)	
Positive thinking, good interpersonal relationship and healthy lifestyle will help to prevent mental illness?	420(89.7)	48(10.3)	
	Agree/Strongly agree n (%)	Neither agree nor disagree n (%)	Disagree/Strongly disagree n (%)
Knowledge about how to find mental health information			
I know where to find information about mental illness			
I know how to use the computer or telephone to find information about mental illness	349(74.6)	46(9.8)	73(15.6)
I am comfortable going to health provider to get information about mental illness	388(82.9)	23(4.9)	57(12.2)
I have access to resources (e.g.doctors, friends, counsellor, internet, TV) that I can use to look for information about mental health illness	421(89.9)	16(3.4)	31(6.6)
	398 (85)	27(5.8)	3(9.2)
	Agree/strongly agree n (%)	Neither agree nor disagree n (%)	Disagree/strongly disagree n (%)
Attitude which facilitates help -seeking and recognition			
People with a mental illness could get over it if they wanted to*			
A mental illness is a sign of personal weakness*	120(25.6)	105(22.4)	243(51.92)
A mental illness is not a real medical illness*			
People with a mental illness are dangerous*	187(40.0)	90(19.2)	191(40.81)
It is best to avoid people with a mental illness so that you don't develop this problem*	82(17.5)	110(23.5)	276(58.97)
If I had a mental illness, I would not tell anyone*	111(23.7)	144(30.8)	213(45.5)
Seeing a mental health professional means you are not strong enough to manage your own problems *	66(14.1)	84(17.9)	318(67.9)
If I had a mental illness, I would not get help from a mental health professional*	37(7.9)	60(12.8)	371(79.3)
I believe getting help for mental illness from a professional would not work*	84(17.9)	63(13.5)	321(68.6)
	66(14.1)	45(9.6)	357(76.3)
	48(10.3)	61(13.0)	359(76.7)
	willing / definitely willing n (%)	Neither willing nor unwilling n (%)	unwilling/ definitely unwilling n (%)
How willing would you be to do following activities with someone with mental illness?			
To move next door	175(37.4)	106(22.6)	187(40.0)
To spend an evening hanging out	157(33.5)	88(18.8)	223(47.6)
To make friends	260(55.6)	76(16.2)	132(28.2)
To work closely	171(36.5)	101(21.6)	196(41.9)
To vote for a politician	78(16.7)	59(12.6)	331(70.7)
To marry someone in your family	63(13.5)	111(23.7)	294(62.8)
To hire him/her if you were employer	205(43.8)	66(14.1)	197(42.1)

Note: *Reverse Scoring

Factors associated with mental health literacy

The study variables (age group, science faculty, source of health information, religion, part-time job, participation in mental health program, alcohol consumption, mental health status, educational status of both parents) which exhibited significant association with mental health literacy at p<0.05 during bivariate analysis (t-test) were further subjected to multiple linear regression.

The mental health literacy for the participants was positive and significantly associated with faculty at p<0.001 and age and source of information at p<0.05. It was negative but statistically significantly associated with a part-time job and mental distress at p<0.001.

Table 3: Factors associated with MHLS

Variables	regression coefficient β	t	p- value	95% CI for β
(Constant)	106.94	70.58	<0.001**	103.96 - 109.92
Age				
<18 years	2.13	2.05	.040*	0.093 - 4.16
≥18 years (ref)				
Faculty				
Science	6.14	4.96	<0.001**	3.71 – 8.57
Non-science (ref)				
Religion				
Hindu	0.75	0.58	.62	-1.62 – 3.13
Non- Hindu (ref)				
Source of Health information				
Internet	2.31	2.16	.031*	-0.21 – 4.41
Non-internet (ref)				
Part- time job				
Yes	-6.78	-5.28	<0.001**	-9.30 - -4.25
No (ref)				
Participation in mental health program				
Yes	1.90	1.48	.139	-0.62- 4.43
No (ref)				
Mental distress				
Present	-3.37	-3.48	.001**	-5.27 - -1.47
Absent (ref)				
Educational status of father				
Secondary and above	-0.88	-0.75	.454	-3.19 – 1.43
Below secondary (ref)				
Educational status of mother				
Secondary and above	-1.24	-1.00	.316	-3.66 – 1.19
Below secondary (ref)				
Alcohol consumption				
Yes	-1.90	1.48	.139	-0.62- 4.43
No (ref)				

*Statistically significant at p<0.05 at 95% CI, ** statistically significant at p<0.001 at 95% CI

DISCUSSION

Mental health problems are often untreated for many years, leading to increased relapses, suicidal attempts, reduced remission rates and worsening overall outcomes while early recognition and treatment of mental disorders improved the quality of life. (12) The Overall MHL in the students was found to be lower (mean score of 110.98) than the students of Australian University and UK University's which were found to be 127.38 and 122.88. (13,14). This variation could be due to the selection of the sample population. The study in Australia and UK was done among the university level students that included the bachelor's and master's degree students and age group included above 16 years. The current MHL score was slightly higher than a study conducted among Iranian people (102.75) and Korean college students (106.8). (15,16) This shows that MHLS for the current study is slightly higher than that of the students from other parts of Asia. However, further study is required that includes students from the diverse background than just including higher secondary school students. University level students would have made good comparisons with these studies.

A study in Nepal using a depression case vignette revealed that only 16.9% of participants could correctly identify the depression syndromes. (17). Another study among Portuguese youth aged 14-24 years found only 27.2%. (18) which is lower than the present findings. This could be because of the use of the scale-based measure in the present study while the previous study used a vignette-based measure. In the present study the ability to recognize GAD 984.2%), drugs dependence (77.6%) and depression case scenario (85.9%) are lower than the study in the United States using the same tool. (19) This recognition could prevent suicide and early help-seeking which might be due to the exposure to the programs of mental health intervention.

In the present study, the cause of mental illnesses was attributed to wrong thinking (52%) and external stressors (56%), and family history (48.5%). This exhibits a lack of knowledge about risk factors and causes. Knowledge of available professional treatment and their effectiveness could enhance the utilization of mental health services. Seeking help from health professionals was thought of as not being strong enough to solve their own problems by 17.9% of the respondents. This highlights that there are some participants who have negative thinking regarding professional help available and these participants require mental health literacy interventions.

People with mental illness experience stigma and discrimination in society as well as in health care system. People who stigmatize mentally ill people have a tendency to maintain a distance with them due to fear

of them being dangerous or catching same illness which is consistent with our study. (20, 21) This stigmatizing attitude prevails in most societies and such social distance would further exacerbate the conditions of the person with mental illness as well as it is a major obstacle to early and successful treatment. (22) A higher degree of mental health literacy was related to less stigma and social distance. (23) Therefore, interventions should be directed towards the anti-stigmatizing attitude development of the people. Such interventions were found to reduce negative stereotypes and the reserve shown towards mentally handicapped can be reduced. (24,25)

Factors associated with mental health literacy

This study found statistically significant difference in MHL between the age group below 18 years and above 18 years. Participants below the age 18 years are found to have MHL higher than the students belonged to age >18 years with mean score of 111.77 and 108.64 respectively. Most of the research has found differences in mental health literacy in age but the results are mixed as some studies have found better knowledge among older adults while some have found better among young adults. (13)

In current study students having part-time job had lower level of MHL (102.33) than not doing part-time job (113.43) and statistically significant which is contrast to the study in Iran. (15)The contradictory finding could be due to the selection of the study population where Iranian respondents are adult with mean age 32 years while, in current study mean age is 16 years. In this study the MHL is found significantly different in Hindu (112.20±10.41) than in non-Hindu (106.49±12.45) at p<0.001where 78.6% were Hindu. A study in Malaysia found similar findings where Muslims were found to have higher level of MHL (107.96) than in non-Muslims (100.84) where Muslims were 81.6%. (26) In both studies the respondents with majority in religious group were found to have higher literacy.

Most of the students in current study used internet as source of health information (71.2%) and their MHL was significantly higher than those who are non-internet users at p<0.05. This suggests that the use of internet for mental health information is best way to reach these young adults. However, problems with internet-based sources include information overload, poor information quality, potential harm and lack of scientific evaluation. (18,27) Similarly, those who participated in mental health programs had higher MHL compared to those who had not participated. This difference is again statistically significant at p<0.001 in bivariate analysis. This emphasizes that MHL program should be targeted to the young adults as mental health educational interventions were associated with statistically significant improvements in attitude towards providing help, social association with a person with mental health condition and improved recognition. (24)

This study found that individual with personal history of mental illness had low level of MHL but no statistically significant relation was found which is contrast to the study conducted in Iran and United States. (19,28) The possible explanation for the present study could be that the study population being the adolescents who are less sensitive for family related matters or due to lack of exposures. SRQ-19 revealed that around 152 (42.7%) students were having mental distress. In a study in UK university students 48.4% of students indicated mild, moderate, or severe mental disorder. (29) Statistically significant difference in mean MHL is found among those who have and don't have distress in SRQ-20. Those who have mental distress are found to have lower MHL compared to those who have no distress. These findings reveal that early identification of the problem is necessary while improving their knowledge and attitude on mental health literacy would prevent them from being stigmatized.

The pilot study of national mental health survey of Nepal has identified 0.7% of the adolescent aged 13-17 years had current substance use disorder while 7.3% of age above 18 years had such disorders. (4) Substance use and mental health problems have significant relationships. The use of substances and their associations with MHL have not been studied so far elsewhere. Present study has tried to identify the relationship between substance use and MHL. MHL was found to be significantly lower among those who consume alcohol compared to non-consumers. This difference is significant in bivariate analysis. While smokers have a low level of knowledge compared with non -smokers. Similarly, those who have used drugs tend to have higher MHL than those who are non-users. As the study is done in the Bhaktapur municipality where alcohol consumption among the ethnic community is most common, so the alcohol consumption might have confounding effect on MHL in bivariate analysis. Thus, further research should be done to explore such relationship with particular focus on the users of alcohol, smoking and drugs to reach to the conclusion.

The educational status of both parents was significantly associated with MHL level of participants. Parents with education below secondary level had their children low level of MHL while parents with secondary or above level of education had their children comparatively higher MHL. This could be because individuals with higher education are generally more exposed and well informed about mental health than their counterparts. Similar findings have been found in other parts of the

world, where increasing parental education levels have been significantly associated with higher mental health literacy levels. (30) A national survey in Australia reported that having tertiary education was significantly associated with higher mental health literacy score. (31) Similarly, MHLS score was found to be higher among those with advanced education in another study. (26) So, the higher educated parents could have contributed to the MHL level of participants.

Limitation of the study

This study has several limitations. The use of SRQ-20 tool is just a screening tool for mental health problems but not a diagnostic tool. So further research using a diagnostic tool could reveal the actual mental health status of students. Participants completed the questionnaire in exam setting, yet there remains possibility that some participants responded to items in a way they considered more socially desirable. Since, very few studies have been conducted in this area in Nepal, we had limited comparisons within the country. The study was done in a single municipality of Bhaktapur district which is relatively an urban area. So, it couldn't be generalized for the rural areas. However, the results of this study can serve as a foundation for future research and policy development.

CONCLUSION

This study revealed a moderate level of mental health literacy among the students with poor knowledge on risk factors and stigmatizing attitude. The mental health literacy for the participants was positive and significantly associated with faculty at $p<0.001$ and age, source of information at $p<0.05$. It was negative but statistically significantly associated with part-time job and mental distress at $p<0.001$. Students who have participated in mental health programs exhibit higher mental health literacy. Therefore, mental health educational interventions should be implemented for the improvements in attitude towards providing help, social association with a person with mental health condition and improved recognition. The roles of teachers, communities, and policymakers could be creating safe environments, building support networks, raising awareness, developing comprehensive policies and allocating resources. This is the first study on the mental health literacy of students at secondary school in Nepal. This study looks beyond their ability to recognize mental health disorders and their opinions about them and fill the knowledge gap regarding the existing situation of mental health literacy especially focused on the school children along with an assessment of predictors of mental health literacy.

List of abbreviations

MHL: Mental Health Literacy; MHLS: Mental Health Literacy Scale; SRQ: Self-reported questionnaire; IRC: Institutional Review Committee; PPS: Probability Proportionate to Size.

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Contributions

SDuwal and RP developed concept, worked on methods, did data analysis and drafted the manuscript. SDuwal worked on the data acquisition. SDhungana worked on the concept and methods of the study. SDuwal, RP, MP, MD, JN, DA and SDhungana reviewed, edited and finalized the manuscript.

Conflict of interest

Authors declare no conflicts of interest.

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Ethical statement

Ethical approval for the study was received from Institutional Review Committee (IRC) of Institute of Medicine, Tribhuvan University [Ref. 213 (6-11) E2 076/077]. Original copy of the ethical approval is submitted as the supplementary files. Permission was also obtained from Bhaktapur Education Section of Bhaktapur municipality office and respective school administrations. Data were collected from the respondents after obtaining consent from their parents (for students under 18 years) and respondents after explaining the purpose and procedure of the study. Confidentiality was maintained and voluntary participation was ensured.

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