

Effectiveness of Educational Intervention on Mental Health Literacy among School Teachers of Selected Schools of Dharan Municipality

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Mental Health Literacy (MHL) includes knowledge and beliefs about mental health and its disorders to help in their recognition, management and prevention. The school teachers are required to have adequate knowledge in these aspects of health and illnesses to make them aware of it and to help those who are in need. The aim of study was to assess the change in knowledge and attitude after educational intervention among school teachers regarding MHL. One group pre-test post-test research design was used in 4 schools of Dharan with randomly selected 56 teachers. Data was collected in two phases using self-administered semi structured questionnaire before and after the educational intervention. The data was analyzed with descriptive and inferential statistics. The study findings revealed that median MHL score increased from 111 to 128 after the intervention which was statistically significant ($P < 0.001$) indicating the effectiveness of educational intervention. Based on this study, awareness program on mental health literacy can be carried out periodically for the teachers.

Key Words: Mental Health Literacy, School Teacher, Effectiveness, Educational Intervention

Introduction:

Mental health literacy (MHL) may be defined as 'knowledge and beliefs about mental disorders which aid their recognition, management or prevention'. It includes knowledge of signs and symptoms of specific disorders, ways of seeking mental health information, risk factors, self-treatments and professional help available; and positive attitudes towards mental illness (Fransis, Pirkis & Dunt, 2010).

Five out of ten leading illnesses, associated with disease burden are psychiatric disorders. World Health Organization (WHO) estimates that in 2020, major depression will become the second most leading cause of disease burden. As a consequence, MHL has gained increased attention within the last few years (Lauber, Adjacic, Fritschi, Stulz & Rossler, 2005).

Mental and emotional problems are common among school students and need to be addressed

like any other physical health problems. The school teachers are in the suitable position to present fundamental information about mental health and illness to the students (Poulakka, Konu, Kikkaka & Paavilainen, 2014). This will help the students to apply the knowledge which they received from their teachers while encountering new situations and making decisions about lives.

There are a total 141000 school teachers and 27940 schools in Nepal; the teacher student ratio ranges from 20-45 in private to 80-100 in government schools (Shiwakoti, 2005). Less than 0.02% of primary and secondary schools have either a part-time or full-time mental health professional in Nepal (Shiwakoti, 2005). Few (1%-20%) primary and secondary schools have school-based activities to promote mental health and prevent mental disorders (Ministry of Health & Population, 2006). The objective of this study was to assess the effectiveness of an educational intervention developed by researcher to optimize the mental health literacy of school teachers.

Methodology

One group pre-test post-test, pre-experimental research design was used to identify the effectiveness of developed educational package. The study was conducted in Public Higher Secondary School (HSS), Shree Sharada Balika Namuna HSS, Bishnu Memorial HSS and Depot HSS of Dharan Municipality. The study areas were selected purposively, total 59 teachers (15 from three schools and 14 from one school) were selected using lottery method. A semi-structured questionnaire was developed by researchers consisting of three parts: demographic factors consisting 11 items; 19 items related to knowledge on different aspects of mental health and lastly a five point Likert Scale, having 11 items, consisting of five positively and six negatively phrased items. The same questionnaire was used to assess the MHL of respondents before and after the educational intervention. At the same time, educational package on MHL was developed in Nepali language. Data was collected after obtaining permission from the research committee and concerned authorities. All the participants were requested for voluntary participation, and an informed consent was

obtained before collecting data. After pre-test, a two hour long structured educational session was implemented and post test data was collected after two weeks of educational intervention. The total duration of data collection was 8 weeks including pre-testing, educational intervention and post-test. The data was analyzed with descriptive and inferential statistics (Wilcoxon Signed Rank and Chi Square Test) at 0.05 level of significance.

Results

The majority of teachers were male (62.71%) and married (83.05%). Based on ethnicity, 45.76% were Janjaties and 42.37% were Brahmin-Chhetri. Their median age was 34 years with median work experience of 12 years. More than one third (39.98%) had completed the Bachelor level and nearly half (45.76%) of them were teaching for secondary level students. Among 59 teachers, 3 failed to attend the intervention program, they were considered as sample mortality (5.0%) and excluded from the study. The sample size became 56. All respondents (100%) had already gained some information about mental health from various sources before the educational intervention.

Table 1 : Effectiveness of Intervention on Mental Health Literacy

n=56

Domain	Median Score (Inter QuartileRange)		P* Value
	Pre-test	Post-test	
Total	111(95-18)	128(119-35)	<0.001
General concepts of Mental health/illness	7(6-8)	11(8-13)	<0.001
Causes of Mental illness	6(5-8)	8(7- 9)	0.001
Signs and Symptoms of Mental Illness	15(12-18)	22(17-24)	<0.001
Mental Health Services-Use & Availability	15(14-16)	15(14-17)	0.120
Treatment of Mental Illness and Misconception	14(12-15)	17(15-18)	<0.001
Prevention of Mental Illness and Mental Health Promotion	9(8-10)	11(10-11)	<0.001
Role of Teacher in Mental Health Promotion	10(8-11)	10 (9-11)	0.145
Attitude towards Mental Illness	34(30-39)	37(30-40)	0.350

* Wilcoxon Signed Rank Test, Maximum Obtainable Score in Total =166, Significant P value = <0.05

Table 1 shows the median MHL score before and after intervention. The result indicates that in total, the increase in median value of score before and after educational intervention was statistically significant. The changes in median scores of five areas of MHL i.e. general concept, causes, signs and symptoms, treatment and misconception and mental health promotion were statistically significant after educational intervention.

Table 2 : Association of Attitude of Respondents towards Mental Illness with Selected Socio-demographic Variables

n= 56

Socio-demographic Characteristics	Median Score (Inter Quartile Range)		P Value	
	Pre-test	Post-test		
Age	< 35	35(30-39)	35(30-40)	0.440
	≥ 35	37(18-39)	37(33-37)	0.525
Sex	Male	32(27-39)	36(30-41)	0.131
	Female	36(32-36)	37(30-37)	0.600
Education Level	SLC	30(25-39)	31(25-41)	0.500
	PCL	33(31-39)	36(27-42)	0.776
	Bachelor	36(30-39)	37(32-40)	0.6 72
Work Experience in years	Master and Above	33(29-40)	35(33-39)	0.593
	≤ 10	35(30-39)	37(31-41)	0.056
Teaching Group	> 10	33(28-39)	36(29-40)	0.869
	Primary	34(31-39)	33(28-38)	0.879
	Secondary	33(28-39)	37(33-41)	0.242

Maximum obtainable score- 55, * Wilcoxon Signed Rank Test, Significant P value = <0.05

Table 2 indicates that there was no significant change ($P > 0.05$) in the attitude level of respondents before and after the intervention in relation to socio-demographic variables.

Discussion

More than two third of respondents (76.3%) could correctly state the meaning of mental illness in pre-test and was increased to 91.0% in post-test, but nearly 2% believed supernatural power as the cause of mental illness after educational intervention also. Knowledge about abnormality of brain structure as the cause of mental illness was rather decreased from 83.0% to 82.1%. Similar finding was noted in a study done among Japanese and Taiwan teachers where teachers emphasized in psychosocial factor rather than biological as the cause of mental illness (Kurumatani et.al, 2004).

The teachers were aware about prominent psychotic and depressive symptoms than somatic and anxiety related symptoms in the pretest. Drug and alcohol use were perceived as a problem by very few (10.2% and 22.0%) of respondents in the pre-test, which increased to 62.5% and 58.9% respectively in the post-test. Contrary to present study, Nizami has highlighted the least improvement in issues related with addiction as condition of mental illness in post-test (Nizami, Aslam, Minhas, Raza, Genel & Tetik, 2007).

In present study, the majority (73.21 %) of respondents could state specific symptom of depression in the pre-test, which was increased by 12% only in the post-test. Similar finding was reported by a study from Jorm et al. who concluded that recognition of depression was high at pre-test and was not affected by the training (Jorm, Kitchener, Sawyer, Scales & Cvetkocski, 2010).

Few (11.9%) teachers considered marriage as one of the treatment modality for mentally ill patients in pre-test, which was decreased only to 8.9%. Similar finding was mentioned in a study done in Pakistan which stated that vast majority of teacher continued to believe marriage as a treatment option for mentally ill patient even after intervention (Nizami et.al, 2007). In need of modern investigations, there was a persistent low (44.0%-50.0%) response after intervention. Similar study from Pakistan has reported the high index of false response even post intervention (Nizami et.al, 2007).

In pre-test, 30.5% of respondents considered no suicidal risk among people who talk about suicide which decreased to 12.5% after intervention. A similar study done in Australia concluded that a number of personal stigma items showed improvement in response to training (P= 0.013) (Jorm, Kitchener, Sawyer, Scales & Cvetkocski, 2010). More than 90% of respondents were aware of other measures of mental health promotion even before the educational intervention, but in response to retirement planning (33.9% to 78.6%) and taking iodized salt during pregnancy (67.8%-92.8%) the correct responses increased after educational intervention.

Nearly all teachers considered positive class room environment, optimum academic contents, positive reinforcement, counseling as helpful classroom behaviours to a student. There was an increase in correct response to limit setting and discipline (78.0% to 89.3%), referring the child with probable problem to a psychiatrist (from 78.0% to 96.4%), suspecting frequent failure as a sign of mental illness (from 49.2% to 60.7%) as a consequence of educational intervention.

Regarding attitude towards mental illness, in the statement of possibility of treatment of all type of mental illness, the respondents who agreed strongly increased from 25.4% to 42.8% in the post-tests. In response to 'marital relationship of family member with a mentally ill under treatment' total percent in 'agreed' side was increased from 45.8% to 62.5%. In a similar study similar findings were noted with increasing willingness to establish marital relationship with mentally ill patient in post-test (P = 0.01) (O'Reilly, Bell, Patrik & Chen, 2011). There was no significant change in the attitude after the intervention, but for the teachers with job experience < 10 years, intervention was borderline significant (P = 0.056). The possible reason might be that attitude of newer employee may change easily than older employee.

Conclusion

Educational intervention is effective to increase the mental health literacy of school teachers in five domains i.e. general concept, causes, signs and symptoms, treatment and misconception and promotion of mental health. For mental health services-use & availability, role of teacher including attitude, the educational intervention can potentially improve the awareness of school teachers. On the basis of this, similar kind of educational program can be suggested to be organized for the school teachers so that they would be in better position to help the students in need.

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