WELHAMS ACADEMIC JOURNAL

Editorial...

Publication of peer reviewed Journal is the reflection of academic excellence of any educational institution. It has become customary for academicians involved in teaching learning activities in different levels to generate research based articles and publish in peer-reviewed academic journals. In recent days, the multi-disciplinary research articles jointly created by the groups of scholars are appearing in impact factor online scientific journals. Such academic and scientific online journals and articles are not only raising the temperature of brain storming and scientific thinking among intellectuals and academicians, but also inspiring and energizing them to produce, initiate and publish scientific journals in different forms around the world.

Welhams College affiliated to Tribhuvan University of Nepal has made an effort to publish an academic Journal incorporating multi-disciplinary scientific articles from different experts and scholars. The articles published in this academic journal are peer reviewed by the concerned experts and professors. The editorial board has made necessary improvement and adjustment on the basis of their feedbacks and comments to maintain the standard of academic and scientific writing as well as publication. The act of publishing a Journal is possible through a well coordinated team work. The academic team always tries to bring out the innovative thoughts of research scholars and intellectual dreams of academicians.

The ideas and thoughts expressed in the articles of this academic journal are of concerned writers. So, the editorial board will not be responsible for any negative words of explanation appeared in the articles.

We express heartfelt thanks to all writers for their valuable research articles. We tender due respects and regards to all experts and professors for their patiently and timely works of reviewing the articles and providing valuable comments and feedbacks for improvement. The editorial board also extends the warm words of thanks to the chairman and executive board members of Angels' Heart Education Foundation and Welhams College for their inspiration and necessary cooperation to bring out this academic journal in present form.

Thanks......   Editorial Board

Table of Content

Writing and publishing a reflective paper:
Three case studies

Rachel Arnold[1*], Jillian Ireland[1,2], Preeti Mahato[1], Edwin van Teijlingen[1,3,4]

1 Centre for Midwifery, Maternal & Perinatal Health, Bournemouth University, United Kingdom

2 University Hospitals Dorset NHS Foundation Trust, Bournemouth, UK

3 Manmohan Memorial Institute of Health Sciences, Kathmandu, Nepal

4 Nobel College, Kathmandu, Nepal

*Corresponding author:

Dr. Rachel Arnold

Abstract

Reflection refers to having an interactive dialogue with oneself. It is a process in which we ask ourselves questions about the research process, our decisions, conduct and biases. We consider what we can learn from the challenges or mistakes and how we can adapt our approach or improve our skills to ensure our research is of the highest possible quality.

Writing reflective articles requires a number of skills and so does trying to get them published. This paper starts with an introduction of reflection as a concept oractivity, followed by three case studies that highlight some of the potential barriers related to getting such reflections published in a scientific journal.

The purpose of publishing a reflective article is toshare the critical processes that underpinned the research process so that readers can underst and how the findings were produced, can learn from other researchers' experiences and mistakes - potentially avoiding similar mistakes. We suggest that reflective articles contribute to a research culture of transparency and growth.

Strategies that may help authors of reflective papers to get them published are discussed. We conclude by posing the notion that reviewers and editors may need to be challenged to acknowledge the contribution of critical reflective articles to the quality and trustworthiness of research findings.

Keywords: Publishing, academic writing, critical reflection; researcher development

Introduction

Academic writing has grown dramatically over the past half century. A large proportion of publishing is still in the traditional format of scientific papers based on primary research. The latter is especially true in the field of health and the natural sciences, with more reflective pieces being published in journals associated with the humanities and social sciences.

Reflection, sometimes also referred to 'critical reflection', is the process of considering your own perspectives, pre-conceived ideas and/or presuppositions from the point of others and critically assessing your own assumptions (Alvesson &Sköldberg, 2000). Reflection is an important part of interpretation in academic research, especially in well-conducted qualitative research (e.g. Mortari, 2015; Forrest Keenan & van Teijlingen, 2004). However, a paper reporting high-quality qualitative research (for example based on focus group discussion or in-depth interviews) is still predominantly a primary-research-based paper with a moderate reflective section. Attia and Edge (2017, p.33) argue that we need to move away from regarding "research methods as objectified procedures to be learnt by researchers" and move "towards the development of researchers who craft procedures integral to the environments in which they operate – environments of which they are also a functioning constituent." In short, reflexivity becomes second nature to the researchers in their research environment.

Here we want to highlight the importance of papers fully focused on reflection. Reflection means asking question of your own research or yourself as a researcher, including: "Why am I doing this research?; or "What are my expectations of the participants, the problem, the data, the outcomes or even the conclusions?; What am I trying to achieve?; and "What are potential consequences of disseminating my research? Reflection may, of course also cover scholarly activities other than research, such as editing an academic journal (Ruckdeschel& Shaw, 2013). Walling et al. (2013) conducted a small-scale study asking medical journal editors what they considered the essential element of a reflective paper for their journals. Theseeditors identified "narration of a specific professional experience that resonated with readers and conveyed deeper meaning" (Walling et al. 2013, p.7). Using creative methods of reflection can unlock deeper meaning and new ways of knowing by highlighting challenges and hitherto unacknowledged assumptions (Buckley 2017).

There are different models of reflection, such as Gibbs (1988), Schön

(1983), Kolb (1984) and Johns (2000). These models are particularly relevant to midwifery and nursing education. They focus on using reflection in clinical practice as well as discuss how the practitioners can use these models to increase self-awareness, self-identity and personal growth. Gibbs (1988) developed a reflective cycle to encourage learners to think systematically about different phases of an activity or experience. The cyclical pattern incorporated six different elements: description; feelings; evaluation; analysis; conclusion; and action plan. Schön (1983) was interested in how people in different professions solved work problems and differentiated between reflection-on-action and reflection-in-action. His model focuses on the relationship between academic knowledge and the acquisition of clinical competence in practice. Kolb (1984) developed Experiential Learning Cycle by proposing that a person learns through discovery and experience. His model emphasises the important role that experience plays in the learning process and provides a holistic model of the learning process that is called 'experimental learning'. This is a four-stage model comprising of components: concrete experience; reflective observation; abstract conceptualisation; and active experimentation. Johns (2000) model for structured reflection encourages students to look at a particular event, its consequences and possible development. This cyclical model consists of the following elements: description; reflection; influencing factors; evaluation; and learning (Wain, 2017).

This short methodological paper introduces three case-studies to illustrate common issues experienced by academics when trying to get reflective articles published.It is worth bearing in mind that researchers are not just technicians with specific research skills but, as Mortari (2015,p. 1) highlighted, they should be able to reflect "on the mental experience which constructs the meaning about practice." This paper concludes with a number of lessons learnt from our collective experience of writing and publishing reflective articles. The following three sections summarise our case studies, two focusing on midwifery and maternity care, the first one around a study conducted in Nepal and the second conducted in the South of England. The paper used as our third example focuses on the opposite end of the life cycle, namely on palliative care.

Midwifery and mental health capacity building in Nepal

Two of the authors (JI+EvT) have been UK (United Kingdom) volunteers in a midwifery and mental-health capacity

building project in Nepal (Mahato *et al.* 2018; Simkhada et al. 2016). One of us submitted a reflective paper on the involvement of three UK volunteers and their Nepali translator (Ireland et al.,2021). This paper was first submitted to a practice development journal which rejected it because the model followed was not strictly practice development grounded. A UK-based midwifery journal rejected it due to lack of rigorous methodology. The rewritten version submitted to the *Journal of the Midwifery Association of Nepal* combined elements of planning of the capacity-building activities with reflections which illustrated the experiences of the team and the collaboration of the 'learners'. The 'learners' were equals, fellow health care professionals, auxiliary midwives, based in Nepal. This improved manuscript was accepted and published by the *Journal of the Midwifery Association of Nepal* (Ireland et al., 2021).

UK midwifery and the experience with Appreciative Inquiry

Three of the authors (RA, PM + EvT) submitted a paper reflecting on the use of AI (Appreciative Inquiry) in a UK maternity unit, to an international midwifery journal. The intention was to share the lessons that had been learnt from using this less well-known research method in the health system. We hoped to help other researchers decide if AI was appropriate for their research as well as providing practical tips for using it successfully.In the 'instructions to authors' there was no article type that encompassed methodology, critical reflection, or lessons learnt. Therefore, before the article was written, the first author contacted the journal to see if a reflection on the process of conducting the research would be a type of manuscript that they would consider publishing. The journal appeared interested and encouraged us to submit the manuscript to them.Two reviewers were assigned by the editor to review our manuscript.

The feedback from the two reviewers suggested they had not read our paper as a reflective piece of work. Reviewer 1 came back with a very short 40-word review, calling the topic interesting, but with a major criticism that the paper "lacks an aim/ purpose which makes it defocused …it is difficult to assess the quality of the research performed". In other words, the manuscript was assessed as research findings paper not a proper reflection on the research process. Reviewer 2 had much more to say, 630 words to be precise, but although detailed and fairly useful, reviewer 2 did not refer to the reflective nature of the paper either. The challenge was that, because of the word limits it was impossible to adequately

report the findings as well as sharing insights and experiences of conducting the study in the same paper. As a compromise, the study team decided to add more detail to the methodology, to structure it more like a traditional research paper and present the reflections as the findings hoping that this would be acceptable to the reviewers. Of course, we still had to respond to the reviewer's comments.

Reflecting on end-of-life care

One of the authors of this paper (JI) wrote a reflective piece on spirituality in a palliative care experience (Ireland, 2010). JI wrote a paper which told the story of a woman's last days. It starts out rather regretful but concludes with a realisation/ reflection that the woman's wishes were respected (and even if the author had initially wanted to provide different things). The manuscript was rejected by the health journal to which it was submitted. Perhaps because there is a bias towards 'positive' papers describing end-of-life care, where everyone did everything right and the message itself is overwhelmingly positive. When submitted to the second journal, *British Journal of Nursing* it was initially rejected by the editor. JI emailed the editor and appealed stressing the view that negative sounding papers deserve to be shared in a spirit of encouragement to nurses who, inevitably are not always

perfectly aligned with patients and can learn from that. The editor conceded and the paper was reviewed and subsequently accepted (Ireland,2010)

Discussion

If you have (a) written up a reflection of challenges in your academic work, focused on education, scholarly activity, or research, and (b) gained true insights which are worth sharing, consider getting it published. Beware, however, getting a reflective manuscript published is not an easy option. Therefore, your first consideration should be the question: "Do I want to try to get this in a scientific journal or use another medium?" Perhaps make the reflective piece part of a research textbook or an online research blog.

If the journal is not keen, there are different ways to communicate with journal editors who are likely to reject more reflective pieces. First, put the reflective piece in an editorial, commentary or an opinion paper. Secondly, 'hide' the reflections in a pseudo findings paper, make the editor, reviewers and perhaps even the reader think that they are reading a findings paper which is dominated by a very insightful reflective element. Thirdly, submit the reflective manuscript to a journal with a section dedicated to critical reflections such as found in *The*

International Practice Journal (https://www.fons.org/library/journal-ipdj-home).

Although it is possible to employ the first two tricks, it suggests that many professional journals do not value reflective practice either for increasing the integrity of the specific study or for the growth of the research community. We would suggest that identifying and learning from mistakes, grappling with how to do things better next time, engaging with the literature, adapting and honing skills in collaboration with colleagues and the research team can be as valuable as reporting the formal study findings. For reflections to be reduced to the 'study limitations' section robs the research community of valuable learning. Furthermore, it perpetuates the impression that conducting research is easy, seamless, intuitive where actually it is often messy, complicated, full of challenges and human failure. At its best research is an on-going process of trying, being honest about things that did not go to plan, reflecting, developing different strategies for next

time and growing in our skills with the aim of producing research that not only satisfies the constraints of journals and peer reviewers but honours our participants and the research process too.

It is perhaps worth asking the obvious question namely: "To whom is my reflective article is most useful?"The answer could be to readers who think that the only way of publishing is with primary papers, or to those who want to learn more about conducting qualitative research. Reading experiences of researchers as reflective papers is often helpful as novice researchers will learn about what mistakes not to repeat.

Although, reflective papers are strongly dependent on context and personal values, experience and emotional reaction, assessment of these papers can be deeply subjective. It is therefore implied that imposing strict evaluation criteria or requirements for authors could impair the quality of reflective papers (Walling et al., 2013).

Conclusion or lessons learnt

Reflective practice is part of a wider methodological approach that helps academics critically review their own and their participants' views, perceptions, biases and ways of knowing. We argue here that some of the more insightful reflections are worth publishing, but, from our experiences, this is unlikely to be an easy process

In academic publishing peer review by fellow academics is seen as the cornerstone of, and guarantee, to quality. We agree with this principle, but we also like to stress the

importance of valuing the internal critic of the researcher. Peer review is after all limited to experts making an assessment on what the authors have written (the impressive story we tell) long after the event. The internal critic, however, is the voice that needs nurturing and is we would argue what makes the real difference to quality. So, another way forward is to challenge the ideas of journal editors, editorial boards and reviewers and advocate for a change inthe status quo.

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Health Related Physical Fitness and Academic Achievement of Students in Kathmandu Valley

Madhav Kumar Shrestha 'Ph.D.'*

***Assistant Professor, Department of Health, Physical and Population Education,
Sanothimi Campus, Faculty of Education, Tribhuvan University, Kathmandu, Nepal*

ABSTRACT

This study entitled "Health Related Physical Fitness and Academic Achievements of Students in Kathmandu Valley**,** was carried out to find out the health related physical fitness and academic achievements of students. The necessary information was taken from six Buddhist Monasteries and Bihars of Kathmandu Valley. Altogether, there were 310 respondents for quantitative data and six respondents for qualitative data. The major source of data was primary. The researcher used attitude scale and in-depth interview for data collection. The researcher found that the health-related physical fitness is most important aspect for improving learning process, cognitive functions and academic achievement. Another finding highlighted that, through meditation and walking meditation, the body achieves a greater state of balance and breathing is regulated. Our mind becomes focused, clear, and organized. Unnecessary desires and improper thoughts are eliminated.

Key words: Physical fitness–cognitive functions-learning process- endurance - flexibility.

INTRODUCTION

Health-related physical fitness is defined as fitness related to some aspects of good health. This type of physical fitness is primarily influenced by an individual's exercise and personal habits; thus, it is a dynamic state and may change. Physical characteristics that constitute health-related physical fitness include strength and endurance of skeletal muscles, joint flexibility, body composition, and cardio-respiratory endurance (Bucher, 1979). All these attributes change in response to appropriate physical conditioning programs, and all are related to health.

Strength and endurance of skeletal muscles of the trunk help to maintain correct posture and prevents problems of low back pain. Minimal levels of muscular strength and endurance are needed for routine tasks of living, such as carrying bags of groceries or picking up a young child (Johonson & Nelson, 1988*)*. Individuals with very low levels of muscular strength and endurance are limited in the performance of routine tasks and have to lead a restricted life. Such limitations are indirectly related to poor

health, but individuals who cannot pick up and hug a grandchild or must struggle to get up from a soft chair they have a lower quality of life than that enjoyed by their fitter peers.

Flexibility, or range of motion around the joints, also ranks as an important component of health-related fitness (Baruwal, 2014). Lack of flexibility in the lower back and posterior thigh is thought to contribute to low back pain. Extreme lack of flexibility also has a deleterious effect on the quality of life by limiting work and sports performance.

Body composition refers to the ratio among muscle, fat and bones in the body. Excess body fat is clearly related to several health problems, including cardiovascular disease, diabetes, and certain forms of cancer. Body composition is affected by diet, but exercise habits play a crucial role in preventing obesity and maintaining acceptable levels of body fat resulting in good health condition.

Cardio-respiratory endurance, or aerobic fitness, is probably what most people identify as physical fitness (Maharjan & Adhikari, 2014). Aerobic fitness refers to the integrated functional capacity of the heart, lungs, vascular system, and skeletal muscles to spend energy. The basic activity that underlies this type of fitness is aerobic metabolism in the muscle cell, a process in which oxygen is combined with a fuel source (fats or carbohydrates) to release energy and produce carbon dioxide and water. The energy is used by the muscle to contract, thereby exerting force that can be used for movement. For the aerobic reaction to take place, the cardio-respiratory system (i.e.,

the circulatory and pulmonary systems) must constantly supply oxygen and fuel to the muscle cell and remove carbon dioxide from it. The maximal rate at which aerobic metabolism can occur is thus determined by the functional capacity of the cardio-respiratory system and is measured in the laboratory as maximal oxygen intake.

Shephard and colleagues (1984) examined the effects on academic performance by adding one hour per day of physical in a cohort of 546 elementary school students. Controlled students received only the standard single period of physical education per week. Each student's academic performance was calculated as the average of classroom grades for French, Mathematics, English, and Natural Science. From grades 2 through 6 (ages 8–12 years), the experimental classrooms exhibited significantly higher levels of academic performance than controls led one, despite receiving, on average, 14 percent less classroom time. Yearly differences ranged from 9.4 percent in grade 4 to 28 percent in grade 2. Across all grade levels, the average difference in academic performance was 15.5 percent

Dwyer et al. (1996): examined the impact of an extended physical education curriculum on academic performance in fifth-grade children (mean age = 10 years) in South Australia. At each of the seven participating schools, class groups were randomly assigned to one of three 14-week programs: such as fitness, motor skill, or control. Classes assigned to the fitness and skill conditions received 75 min of moderate-to-vigorous physical

activity per day, 15 min before school and 60 min in normal class time. Classes assigned to the control condition received the usual three 30-min periods of physical education. Despite a substantial reduction in classroom time for the fitness and skills groups (210 min per week), there were no significant group differences in arithmetic performance or reading skills over the 14-week study period.

Sallis et al. (1999) investigated the effects of an intensive 2-year health-related physical education program on academic achievement in elementary school children. Seven participating primary schools were randomly assigned to one of three experimental conditions. Two schools adopted a modified physical education curriculum taught by physical education specialists. An additional two schools adopted the same curriculum, but the program was taught by classroom teachers and not physical education specialists. The three remaining schools served as controls that maintained their usual physical education program taught by classroom teachers. The modified physical education program called for a minimum of three 30-min lessons per week for 36 weeks. Academic achievement before and after the 2-year physical education program was measured via school district administered standardized tests. Scores in all conditions declined over the 2 years. Although the teacher-led physical education program significantly attenuated the declines in overall achievement and achievement in language and reading, the intensive physical education program did not adversely affect academic achievement, despite a doubling of the amount of time devoted to physical education.

OBJECTIVES OF THE STUDY

The objective of this study is to identify the relationship between health related physical fitness and academic achievement.

METHODOLOGY

This study was based on explanatory research design. The populations of this study were 310 Buddhists for quantitative data and six Buddhists for qualitative data. The Monasteries and Bihars were selected purposively; however, the respondents for the quantitative study were selected randomly. The researcher applied Carr attitude scale for quantitative data and in-depth interview for qualitative data collection. The quantitative data were analyzed using a Statistical Package for Social Science (SPSS) version 20 from which mainly the Chi-square and percentage were used. After collecting the qualitative data, the researcher treated the various codes, linked each other statements. This is the final stage of making analytical sense of the data, creating storyline around which all other codes and categories are integrated

ANALYSIS AND DISCUSSION OF RESULTS

Physical exercise and sports activities have a beneficial effect on children's physical mental and social health. this activities reduce the risk of cardiovascular diseases, prevent excessive

weight gain and improves physical fitness. A sufficient level of physical exercise and sport activity is vital for normal growth and development of children. Physical exercise and sports activity support children's physical, cognitive, motor, social and ethical growth and development in many ways.

Popular statement indicates "a sound mind in a sound body". If people are physically healthy and fit they get mental soundness and balance. All people receive numerous physical and mental health benefits from meditation, physical exercise and sports activities, including improved fitness, cardiovascular, metabolic, and cognitives function, as well as social, emotional and spiritual health.

Table 1: Physical Education and Cognitive function

Scoring Key	Sex of the Respondents				Total	Total Percent
	Male	Percent	Female	Percent		
SA	50	16.1	35	11.3	85	27.4
A	90	29.0	52	16.8	142	45.8
U	22	7.1	20	6.5	42	13.6
D	22	7.1	11	3.5	33	10.6
SD	03	1.0	05	1.6	08	2.6
Total	187	60.3	123	39.7	310	100.0

The above table shows that among 310 respondents 85 (27.4 percent) expressed that they strongly agree, 142 (45.8 percent) agreed, 42 (13.6 undecided, 33 (10.6 percent) disagreed and 08 (2.6 percent) strongly disagreed on the statement physical education and sport activities and cognitive function. It can be interpreted that physical education and sports activities help to improve cognitive function of Buddhists and other people. Similarly, physical education and sports provide more fun and entertainment to us.

When the responses were statistically analyzed, the calculated value of Chi-square 4.037 showed that there is significant difference between what was expected and the responses from the Buddhists in 5 percent level of significance and 4 degree of freedom. It means Buddhists have had positive attitude towards physical education and sports activities

Practical Vipassana Exercises (2016) agreed physical education and sports activites may be a key determinant of cognition improvement of pupils. Growing body suggests that physical education and sports activites have a clear influence on the aspects of cognition improvement such as concentration, memory, inhibition and classroom behaviour that are the foundation for academic abilities.

World Health Organization (2018) suggested that leisure-time physical exercise and sports activites performed at least twice a week yielded maximum neuro-protective effects for people across all ages, sex, and varying degrees of genetic susceptibility. People who are active in their middle years and even those who begin

exercising after hitting mid-life have lower risk of developing heart disease in their old age than those who do not exercise. However, it is interesting to note that the cognitive benefits of leisure-time physical exercise and sports activites in mid-life were most prominent in overweight and obese persons.

The verbal responses indicated that the physical education and sports activities improved cognitive functioning. One of the Buddhists said, *"Physical education*

and sports activites help to keep physically, mentally, emotionally and socially healthy and fit, healthy and fit persons can succeed to get enlightened". Another one said, *"Physical education and sports activites play a vital role to bring positive effectes on children's cognitive functions, such as memory, attention and general information processing and problem-solving skills. Increasing physical activity improved test results, in particular in tasks requiring executive functions and memory of children"*.

Table 2: Role of physical education in modern education

Scoring Key	Sex of the Respondents					Total Percent
	Male	Percent	Female	Percent	Total	cent
SA	07	2.3	2	0.6	09	2.9
A	13	4.2	09	2.9	22	7.1
U	20	6.5	12	3.9	32	10.3
D	106	34.2	72	23.2	178	57.4
SD	41	13.2	28	9.0	69	22.3
Total	187	60.3	123	39.7	310	100.0

Above table shows that among 310 respondents 69 (22.3 percent) strongly disagreed, 178 (57.4 percent) disagreed, 32 (10.3 percent) remain undecided, 22 (7.1 percent) agreed and 09 (2.9 percent) strongly agreed on the statement that role there is physical education in modern education. It can be interpreted that physical education and sports activities and learning activity in schools cannot be separated; it is main part of teaching learning activities in and out of schools.

When the responses were statistically analyzed, the calculated value of Chi-square 1.291 showed that there is significant difference between

what was expected and the responses from the Buddhists in 5 percent level of significance and 4 degree of freedom. It means Buddhists have had positive attitude towards physical education and sports activities related negativ.

The main dimensions of meaning analyzed from verbal responses indicated physical education has an important place in modern education. One of the Buddhists said, *"Physical education and sports activity are important in teaching learning process, classroom behavior, concentration on assignments and participation in classwork"*. Another Buddhist said, *"Schools should be*

providing adequate opportunities to do or play, physical exercise and sport activites for all schools' students on equal basis". He added, *"Physical education improves our overall well-being and is one of the best preventers of many chronic diseases. No other school subject has the potential to* *fulfill these health needs. If schools are to make a positive impact on our children's' health now and in the future, physical education must be planned in schools, be taught by qualified teachers, and focused on healthy behaviours".*

Table 3: Role of physical exercise and sports activities on study

Scoring Key	Sex of the Respondents				Total	Total percent
	Male	Percent	Female	Percent		
SA	7	2.3	6	1.9	13	4.2
A	21	6.8	22	7.1	43	13.9
U	50	16.1	20	6.5	70	22.6
D	71	22.9	45	14.5	116	37.4
SD	38	12.3	30	9.7	68	21.9
Total	187	60.3	123	39.7	310	100

The above table depicts that among 310 respondents 13 (4.2 percent) stated strong agreement, 43 (13.9 percent) agreed, 70 (22.6 percent) remain undecided, 116 (37.4 percent) disagreed and 68 (21.9 percent) strongly disagreed on the statement there is role of physical exercise and sports activities on study. It can be interpreted that sports and physical activities do not make the students poor in their study.

When the responses were statistically analyzed, the calculated value of Chi-square 6.803 showed that there is significant difference between what was expected and the responses from the Buddhists in 5 percent level of significance and 4 degree of freedom. It means Buddhists have had positive attitude towards sports and physical activities.

The main dimensions of meaning of their responses show that Buddhists were interested in Physical Education but there were barriers which made them not to participate in physical activities in and out of monastery and Bihar. Some of the quoted responses are: *"I do not have time for physical activity in and out of Monastery .I have to study, do meditation and other activities."* Another Buddhist said*: "I cannot participate in physical activities because of lack of safety in the Monastery and Vihar."* The other one responded *"The location and environment is not safe for Buddhists to play outside because of dress so we are encouraged to stay indoors always in the Monastery".* It is one of the challenges for Buddhists in Monastery and Vihara as it is difficult to find open and safe spaces for recreation. It means sports activites do not make them poor in their study.

Table 4: Role of physical exercise on learning process

Scoring Key	Sex of the Respondents				Total	Total Percent
	Male	Percent	Female	Percent		
SA	05	1.6	04	1.3	09	2.9
A	20	6.5	07	2.3	27	8.7
U	57	18.4	47	15.2	104	33.5
D	69	22.3	54	17.4	123	39.7
SD	36	11.6	11	3.5	47	15.2
Total	187	60.3	123	39.7	310	100.0

The above table shows that among 310 respondents 47 (15.2 percent) articulated strong disagreement, 123 (39.7 percent) disagreed, 104 (33.5 percent) undecided, 27 (8.7 percent) agreed and 09 (2.9 percent) remain strongly agreed on the negative statement the role of physical exercise on learning process. It can be interpreted that sports and physical activities help to learn other subject better or well. It means Buddhists have had positive attitude towards physical education and sports.

When the responses were statistically analyzed, the calculated value of Chi-square 9.654 showed that there is no significant difference between what was expected and the responses from the Buddhists in 5 percent level of significance and 4 degree of freedom. Cumulatively, 72.2 percent respondents responded positively that the role of physical exercise on learning process.

The main focus of meaning of their responses show that a Buddhist doesn't believe students who learn sports and physical activities well cannot learn other subject well. Some of the quoted responses are: *"There is a positive correlation between physical activity and cognitive performance such as perceptual skills, intelligence quotient, achievement, verbal tests, mathematics tests, developmental level/ academic readiness, and other among school-aged children".* Another one responded, *"at the very least, time spent in physical education does not hinder academic performance and may even lead to an improvement".* Other one said, *"Physical activity has been proved to enhance learning and memory power in humans and to delay or prevent cognitive decline in elderly humans. It means who learns physical activities well also can learn other subjects well".*

Table 5: Health related physical fitness and academic achievement

Scoring Key	Sex of the Respondents				Total	Total percent
	Male	Percent	Female	Percent		
SA	35	11.3	28	0.9	63	20.3
A	79	25.5	59	19.0	138	44.5

U	39	12.6	23	07.4	62	20.0
D	19	06.1	06	01.9	25	08.1
SD	15	04.8	07	02.3	22	07.1
Total	187	60.3	123	39.7	310	100

The above table shows that among 310 respondents 63 (20.3 percent) expressed that they strongly agree, 138 (44.5percent) simply agreed, 62 (20 percent) undecided, 25 (08.1 percent) disagreed and 22 (07.1 percent) strongly disagreed on the statement health related physical fitness helps to get better academic achievement. It can be interpreted that sports and physical activities and get academic achievement. It means Buddhists have had positive attitude towards health related physical fitness.

When the responses were statistically analyzed, the calculated value of Chi-square 4.451 showed that there is significant difference between what was expected and the responses from the Buddhists in 95 percent level of significance and 4 degree of freedom. Cumulatively, 64.7 percent respondents responded positively that health related physical fitness helps to get better academic achievement.

Regular physical activity is a factor in healthy living. The benefits of regular physical activites for children and adolescence include: building and maintaining healthy bones, muscles and joints, reducing feelings of depression and anxiety, and promotion of psychological well-being. In addition, physical activites help control weight, reduce fat, build lean muscle, and assist good academic performance. Buddhism (2014) illustrated that when we walk, sit, and sleep, we will be calm and peaceful, which eventually results in a greater degree of overall health and academic results. One Buddhist responded, *"Health related physical fitness is essential for the development of mental, physical, social and spiritual aspects of individuals. Hence a well-organized and properly administered physical education program for school children is very essential."* Another respondent said, *"Regular physical activites reduce the risk of coronary heart disease, diabetes, hypertension, colon cancer, breast cancer and depression. Additionally, physical activites are key determinant of energy expenditure, and thus are fundamental to energy balance and weight control."* Other one responded, *"Health related physical fitness not only improves health it also improves your academic performance and performance at work."* Most of the Buddhists shared the same feelings about Health related physical fitness that it helps to get better academic achievement; it appears that Buddhists have had positive attitudes towards health related physical fitness and Physical Education.

CONCLUSION

The researcher found that there was positive relationship between health related physical fitness and academic achievement. But some barriers such as facilities and

equipment, dress for participants, teachers and the learning environment are hindering student's participation in physical exercises and sports activities in and out of schools and Monasteres. The findings highlight that health related physical fitness helps to improve learning process, cognitive functioning and educational activities. Similarly, well-organized and properly administered physical education program is very essential to maintain health related physical fitness and academic achievement of students.

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Use of Social Networking Sites: A Help or Threat to Rohingya Refugees ?

Ms. Sandhya Thapa, M. Phil/M.A.
Lecturer, Welhams College, TU

Abstract

The usage of Social Networking Sites (SNS) has been accelerating these days. This paper includes the impact of usage of SNS among Rohigya Refugees. SNS appear to be extremely advantageous to anyone living in an unfamiliar area. The obvious explanation for its quick rise in users is that it is seen as a useful platform for all. As a result, people are not paying attention to its other aspects, which can negatively impact refugees. They use social media to keep track of other Rohingyas who have been displaced around the world. They primarily share images via text messaging apps on their phones. They are all utilizing SNS on their mobile phones. They are not using laptops or PCs to access SNS. They utilize Arabic script instead of English script in chat rooms because they are less educated. The main purpose for using SNS is to stay up with the situation in Rakhine state and to communicate with other displaced Rohingya people throughout the world. When they discuss the consequences of social media, they say that they are scared when they see photographs, videos, or posts about mass killings and riots, yet they still contact other Rohingya on social media. SNS has become a simple and economical method for them to contact Rohingya people all over the world, and they see it as a huge benefit to them.

Keywords: SNS, Refugees, Communication, Internet, Muslim

Introduction

Rohingyas are an ethnic group. Syed Zain Al-Mahmood (The Wall Street Journal) writes, they are people of South origin. They have been living in Arakan since the 8th century, now known as the Rakhine state of Myanmar. In the year 1982, the government auditioned new immigration law to redefine migrated people during British rule as illegal immigrants. With this law, Rohingya became stateless overnight. The army changed the name of Burma to Myanmar. Under a tyrannical government, Rohingya had to suffer from forced labor, rape and religious persecution headed by Myanmar army. After escaping bloodshed and persecution in Myanmar's Rakhine State in 2017, more than 742,000

Rohingya were compelled to seek safety in Bangladesh. Children make up 49% of Rohingya refugees and asylum seekers, while women make up 25%. In March 2021, a fire ravaged portions of the Kutupalong refugee camp, destroying 48K Rohingya homes and all of their belongings. (UNHCR)

During the research Rohingya refugees living in Nepal were found to be totally relying on the information they receive on SNS. The study depicts the impact of information shared through SNS. People who do not use their conscience push the share button without contemplating about the consequences on others who are watching. As a result, any form of information, regardless of its integrity, can be sent with ease. Especially those people who are living in a vulnerable situation in foreign land opt to SNS to be informed and communicate.

Similarly, we see a variety of stories on the Rohingya minority every day. Facebook and other social media platforms have been accused of distributing false information about the Rohingya. According to the Reuters piece, Facebook is inflaming anti-Rohingya sentiment. "U.N. human rights experts examining a probable genocide in Myanmar indicated that Facebook played a role in disseminating hate speech there," according to the story.

(Miles, 2018). The central government and the Rohingya have a tense relationship.

Methodology

This paper shows usages of social networking sites and impact of its usages among Rohingya Refuges. In order to accomplish this paper, information was collected through the internet for secondary data which helped to find out types of news posted and shared on SNS. In order to collect statistical data, the website of UNHCR and online portals like The Washington Post. Other relations between variants of research like the situation of refugees and usages of SNS are collected via articles, journals and books based on refugees. The primary data were collected through interviews with Rohingya refugees. It helped in determining why they use SNS.

DISCUSSION ON FINDINGS

Refugees and their problems are one of the heated topics on social networking sites. There are hundreds of thousands of refugees and their issues are crucial to international politics. It is worthy to understand the effectiveness of SNS for refugees. These social networking sites (SNS) like Facebook, Twitter, YouTube, and various blogs are functioning effectively to raise, to solve their issues and how useful they are for the refugees living in Nepal. The study inquiries, usage

of social networking sites, how do they use it, and if social networking sites help or a threat for refugees.

SNS seems to be very beneficial to everyone living in a strange land. The obvious reason for the rapid growth of its users is, it is regarded as a helpful platform to everyone. So people are not heeding to its other aspect, it also can have a negative aspect which hinders refugees too. How much they use social networking sites and if SNS has ever been a threat to them. If it has, then in what ways refugees have felt SNS has become a source of threat to them? The purpose and effects of using social networking sites will be investigated. Have the SNS appeased their purpose of communication?

People without using their conscience press the share button without concerning their effect on the other people who watched. That's why any sort of information is transmitted effortlessly regardless of its integrity. To bring the case in point, Kritika Goel writes, "Two powerful images of war-torn Syria have come to light, which define the horrors of the civil war that has destroyed the country. But as it turns out, the images that are being passed off as pictures from war-ravaged Syria are not actually from Syria." So yes, without knowing actuality people tend to post those things on SNS.

In addition, Weimann includes in his journal that SNS like Facebook, Twitter and YouTube are a source of terror to entire humankind. He writes postmodern terrorists are spreading their ulterior motifs through the internet. They are using various chatroom, blogs too to communicate through various kinds of people around the world. He asserts that popular SNS are means of attracting potential members and followers and these SNS cannot be subjected to control or any sort of restriction especially in a place like Nepal.

SNS can be operated to disseminate propaganda to Rohingya and they can be manipulated by the radical group. So there is a threat for the innocent Rohingya people who can be influenced to commit something dangerous to the people in Nepal or elsewhere in the world. Hence, it is important to investigate how much they use social networking sites and if SNS has ever been a threat to them or other communities in Nepal. If it has, then in what ways refugees have felt SNS has become a source of threat to them. Both the purpose and effects of using social networking sites over them are explored.

Likewise, Every day we find various news on the issue of the Rohingya community. Social networking sites like Facebook, are accused of spreading wrong information on Rohingya.

On the other hand, SNS is an important source of communication. People spend maximum time on the internet to find out the latest updates from the world. It is an open platform for everyone. We experience a variety of versions of the single phenomenon on the internet. So when it comes to refugees and their issues social networking sites have become a useful source for them to deliver their own version about themselves. Gowen and Bearak report in The Washington Post, hatred against Rohingya is circulated by SNS. It has become an agent to present issues of Rohingya as issues of Muslims. Those Muslim haters are calling them terrorists and SNS is credulous means to spread, collect views against Rohingya. They assert that in Burma, Buddhists hefting hard feelings for Rohingya people are employing SNS like Facebook. So, Facebook news feed shows how Buddhists are converting Rohingya into terrorists and also these medium accelerated extensions of ethnic enmity.

A report suggests that the government is disseminating hatred towards the Rohingya community. U.N. Myanmar investigator Yanghee Lee said Facebook was a huge part of public, civil and private life, and the government used it to disseminate information to the public. "Everything is done through Facebook in Myanmar," she told reporters, adding that Facebook had helped the impoverished country but had also been used to spread hate speech." (Miles, 2018). Other than the government, there are hardline nationalist monks who have been updating speech on Facebook filled with anti-Rohingya and other ethnic groups. So, Lee accuses Facebook of being a beast to spread hatred towards persecuted groups in Myanmar. She claims, "It was used to convey public messages but we know that the ultra-nationalist Buddhists have their own Facebooks and are really inciting a lot of violence and a lot of hatred against the Rohingya or other ethnic minorities." (Miles).

Yorke stresses in the journal, people might experience a variety of threats from the internet. Yorke highlights such threats that can come from states, extremist or terror groups, individual and so on. He asserts that the internet is being operated by people with ulterior motives, "The variety and nature of threats from cyberspace and their potential harm has captured the attention of policy-makers, politicians and the media. In cyberspace, people can act with relative impunity, under the shield of anonymity." (Yorke, 2010, p. 19)

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In this informative age, people love to post pictures and ideas on SNS. The research shows 38% of people in Burma, use Facebook and other internet sites to get informed and rely on media completely. So, things coming in the media can have a special effect on the readers. In Burma, not only ordinary people but also government officials are sharing anti-Rohingya posts. The Washington Post includes quoting Mathew Smith (Co-founder of Fortify Rights, a human rights organization working in Southeast Asia) "Burma is experiencing an ugly renaissance of genocidal propaganda. And it spreads like wildfire on Facebook." (2016)

In the SNS, Rohingya are given pejorative connotations and most of the time surficial information like Rohingya are immigrants from Bangladesh, they are dangerous and hence should be sent back to their own place are being articulated.

The government or military accounts are allegedly perpetuating false information about them on SNS:

A recent Facebook post on the page of the office of the Burmese military commander in chief — which has more than 2 million followers — detailed the results of an internal investigation that exonerated the military of any persecution of the Rohingya and used the term "Bengali terrorist" 41 times. (The Washington Post)

According to Weimann, terrorists are taking advantage of globalization and technological development and through it, they are exchanging and executing deadly ideas among their group. Since they can hide their identity the internet has long been a favorite tool for terrorists. (45) The Internet has enabled them to reach vulnerable groups around the world. They can get larger audiences, supporters to foster public awareness and sympathy to their cause. SNS has also become a source to collect information about them for mainstream media. Through the videos and written information, they are transmitting their mission. He implores, in addition to launching their own websites, terrorists can harness the interactive capabilities of chatrooms, instant messenger, blogs, video-sharing websites, self-determined online communities, and social networks. (Weimann, 46) It is noteworthy to mention

that terrorists are using the pseudo name and articulating dangerous task like bomb-making instruction and suicide bombing operations on the internet. It is a challenging job to identify them to barricade their exposure. The extremist internet forum is establishing a chain of threat, via SNS, they spread threats around the world and also they hack government sites.

Rohingya in Nepal

The majority of male Rohingya in Kapan are taking advantage of Wi-Fi to connect with their people at foreign lands and also to show their whereabouts and issues in Nepal. But the female has no access to SNS at all. They have been using and checking news updates on Youtube, Facebook, Whatsapp, and Imo. Rather than mainstream media, SNS these days take a significant role to keep people updated with the happenings of the world. They are keen to know about other Rohingya fellows especially in Cox's Bazar in Bangladesh and Myanmar. They want to be informed about Myanmar government policies and planning for the Rohingya Muslim minority in Myanmar. They saw turmoil and persecution of Muslim ethnic minority Rohingya community in Rakhine state on 25th August 2017.

Hence some of them who came to Nepal in 2012 and before "genocide"

in Myanmar are keeping updates through SNS. Cladding snowball sampling method a case study conducted with 3 people who came from Myanmar. People coming from Myanmar have a distinct story to tell. Their journey to Nepal and their stay in Nepal is full of huddle and hassle. The case study covers their present condition, their travel history, and usage of SNS.

The case study unfolds various people's survival stories. But the common ground of the solution of their problems lies in their wish to get their requirements answered which doesn't seem to be solved any time soon despite a new repatriate process launched by the Myanmar government. They see the process isn't to establish them in their country rather the process is a systematic process to make them refugees.

The Rohingya females are submissive to male. They don't do much talking to strangers unless they are brought up by a male. They hesitate to talk, and to meet straight and also they don't go out to work and lack communication skills. Some of them don't even speak the Nepali language. They are not educated so they don't have access to SNS. They don't spend time on the internet, unlike men. After talking with them for 30 minutes with each of them it was clearly noticed both male and female know about SNS and

its utility. The interviewed male uses SNS and female who though doesn't even have SNS get informed about their country by the husband or male member in the family. Their main concern is to find out what sort of picture and posts are available online.

Along with the newsfeed, private chat room are also a source of collecting information as they recieve dead and raped body in Rohingya. When asked about the authenticity of those pictures, they bluntly said their fellow wouldn't do that. Instead they showed dissatisfaction over some people who wrote anything on SNS which are away from facts. For instance, their number is less than the number provided in some social media in Nepal. Mohamad Aiyas is one of the Rohingya refugees residing in Nepal who is always online with his friends since 2012. There were 16 people altogether who came to Nepal the same year. Despite many complications in Nepal, he shares that people living there are using the facility of Wi-Fi to use SNS. After coming to Nepal he hasn't watched TV but he uses the internet to collect information and keep connected with his friends and relatives. He pays 1,800 rupees for his Wi-Fi per month, the cost he shares with other Rohingya people living in Ram Mandir, Kapan. Aiyas mentions he got that Wi-Fi with the help of a contractor for whom he worked in 2017. He informs that

only male enjoy the facility of Wi-Fi. He says in his community there is only one man who has a TV at that place. So they get all the information through SNS rather than mainstream media.

He has friends in India, Saudi Arabia, Nepal, and Bangladesh. He communicates with them through WhatsApp. They have a close group in SNS like WhatsApp. He admits they circulate pictures on WhatsApp. Those pictures are from Myanmar. He says his friends from Myanmar send pictures of people killed in Myanmar for a few days and through WhatsApp, he saw 40-50 people buried all together in a single place.

Rohingya people living in Nepal are less educated so they can't use SNS as rigorously as compared to other people in Nepal. So he hasn't found anyone manipulating him from other parts of the world to get involved in mal- activities. He uses SNS to know the latest updates in Myanmar. He isn't very educated so he doesn't write or post pictures on SNS mentioning them. He thinks Facebook is a source of threat. He sees mass killing through SNS and it numbs him. So, rather than taking SNS as the help he levels SNS as a threat.

But SNS can be a help to their community if true information is spread through it. He is disgusted over the false

news he sees on media like recently he found people sharing on Facebook about the number of them in Nepal. They are only 323 in number but on SNS, they are said to be 800 in number. He finds YouTube is the best media where he sees the report on various issues of Rohingya from Myanmar. He states that to get to their home country, they can present their requirements on SNS but till he doesn't get citizenship and get back his property, he doesn't think he would go to his country. While trying to explain reasons to escape Myanmar he pulled his sleeve up and showed a scar on his hand which he had when the military attacked him in 2012. It really put me in pain to see him scared and it can be summarized that they were indeed a lucky few who survived an accident.

SNS is a source of information. Rohingya people are living in a difficult situation in Nepal. However, they have managed to get information via SNS since it is easily available. They have easy access to Wi-Fi for which they pay 18,000 per year. They don't have a television at home. Only one person is found owning a television at home. So, they know what the Myanmar government has been doing since they left their country via SNS.

SNS is a way of communication. When a question was asked how they keep contact with the people at Cox's Bazar, Bangladesh, they showed a group chat on Whatsapp. They communicate in Myanmar's language and share pictures of wounded men and raped women. Though some of them are uneducated, they check pictures posted on Facebook. They also send their pictures and receive pictures via SNS like Whatsapp and Facebook.

SNS is a way of spreading false facts about them. At the moment, they are aware of the journalist, and online operators. They get to know about themselves via SNS. They are dissatisfied with some of the false information being shared on SNS. When they were asked about the total number of Rohingya people in Nepal, they are sure it's not more than 323 but they checked on some SNS the number is different from the exact number of them in Nepal.

SNS is a platform to showcase their problems. During the survey they admitted that through SNS they can bring their issues out. More than three-quarters of the surveyed Rohingya men strongly agree that they use SNS to showcase their problem. Smartphones are the only access to SNS. The survey results show that rather than the computer, laptop and any other electronic devices Rohingya use android phones to operate SNS. For example, most of them are using Samsung cell phones.

The survey indicates that they can afford android mobile phones to communicate. And mostly they use a phone to check SNS. Teenage boys spend more time on the internet than men. Teenage boys spend more than an hour on the internet but men above twenty years spend less than an hour on the internet.

SNS takes them to their own people living away from them. In addition, while finding their attitude towards SNS, the reason for using SNS was also explored. They use SNS to learn about the situation of their country. They spend less than an hour a day on the internet to use SNS. They mostly talk to their fellow citizens living in different parts of the world. They think SNS is an easy way to stay connected with their people. Though they can't get back to their own country, they watch it through SNS.

SNS has both positive and negative effects on them. They do keep discussing the posts, pictures, and videos with their friends, family members, and wife. They even showed a picture of burnt houses, killed men and raped women. This is how the Rohingya Muslim woman who doesn't know how to use SNS, who doesn't have an account on SNS knows so many incidences in Myanmar. They tell us like they had seen those horrific riots at far away land.

Due to which they don't want to go back to their country. The positive aspect is that it helps them to connect their people away from Nepal.

SNS is more of a help for Rohingya than a threat. They take it as a fundamental way to see things away from their capacity. Some of them also embedded their answer to express that they are the source of threat as well. They think getting exposed to the atrocity in Rakhine state gives them a feeling, getting back to the place is dangerous. When they find people sharing that frightful bustle on the internet, despite its efficacy, it also can be a source of the threat. Albeit it's to a lesser degree, we shouldn't be blunt about its effect on them. Indeed there is no doubt that SNS is helpful for them as it helps them to communicate to their people, know what's happening in the world especially among the refugees like them and the problems their country is currently facing.

But when they keep sharing and updating on the bustle and riot in their country they will be reluctant to get back to the country which can be very bad to our country. Even though women weren't part of the survey yet they seem to be very well informed about complications in their country. They said that they knew it from SNS as their husband showed them the grim

picture coming from their country on the internet. Due to this, they are discouraged to go back to their place. So it is a source of threat too.

SNS is a problem solver. They believe SNS can solve their problem as they believe with the use of SNS they can reach the people of the world. They are hopeful a large number would take interest in them if their problem comes on SNS. They are not optimistic about getting help to settle down the matter they have in Myanmar but they think today they are staying easily in Nepal and can move to Bangladesh and India because of SNS. So, SNS is a problem solver for them for temporary matters like staying in a foreign land and getting sympathetic attention from the people. One of them also said that SNS helps to grab the attention of people like me who come to

study in their community. However, they are doubtful that SNS can bring a drastic change in their life so a larger number of people who are surveyed, don't think SNS can do much to get back to their home.

SNS is viewed as a useful invention. 4 different places are visited where Rohingya people have been residing and discover that there is a Wi-Fi connection of NCELL for which they have to pay 21 thousand rupees. Though they are living in a difficult situation, they value the means of communication that's why they have a Wi-Fi connection. They don't possess a television set but they can afford an android mobile phone through which they can communicate, and remain informed as well. As they value food, shelter, and clothing as their basic requirement, today they also value SNS as a useful invention.

Conclusion

For refugees SNS have become an ample source of showcasing their situations to the world. They are using SNS to keep updates of fellow Rohingya people displaced in various parts of the world. They mostly circulate photos through chat devices available on their phone. All of them are using SNS through their mobile phone. None of them are using laptops or computers to operate SNS. Since they are less educated, they don't chat in English script to chat on chat rooms, they use Arabic script.

Furthermore, they also check posts about their country to show to other Rohingya fellows living in the community if one doesn't have access to SNS like women. So everyone describes the riots and killing that happened in Rakhine state in August 2017 as they have seen it live. Even though most of them have come in 2012 onwards by land from India, they are reluctant to go back to their place due to riots and mass killings

which they knew about through social media. The major reason to use SNS is to find out the situation of Rakhine state and to keep connected with other displaced Rohingya fellows around the world.

While talking about the effects of social media, when they look at pictures, videos or posts on mass killings and riots, they get frightened but yet they communicate with other Rohingya through SNS. That is why despite disturbing news available on social media they operate it via mobile phone. As they get to hear the humanitarian crisis in Myanmar, they are reluctant to return back to their country. They take SNS as a great help for them because SNS has become an easy and affordable medium for them to communicate with Rohingya people around the world. Some of them also use it as a source of entertainment.

They check videos on YouTube to refresh themselves. They also think SNS as a help since they believe SNS can spread their issues in the world which might help them to solve their issues in Myanmar.

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A Phenomenological Study: Differently Abled Female Students' Educational Experiences

Bismita Tamang, M. Phil Scholar/M.Ed.

Graduate School of Education

Tribhuvan University

Abstract

The purpose of this study was to explore the challenges experienced by female students with physical disabilities (especially those female students who became disabled during their teenage and childhood due to some diseases). To look into their lived experiences, I included three higher educated female students' voices in my study. Among them, one was a wheelchair user and two were crutches users. The qualitative phenomenological research methodology were used for this study and data was analyzed and interpreted through the thematic analysis method. In-depth interviews were taken with each respondent twice. This study reveals that being a female student with a disability is more challenging than others. They have to fight within themselves, society, peers, instructors, and even with their welfare organizations to show their ability and implement their knowledge.

Keywords: Differently abled, Impairment, Unfriendly, Stigmatization, Barrier, Tag, Encounter

Introduction

Disability is a circumstance and a broad concept that encompasses people's activity impairments, and limitations. The term "disability" refers to the inability to carry out daily tasks (WHO, 2014). Disability is a complex issue that represents the interaction between a person's physical traits and the qualities of the society in which they live (Johnmark & Munene, 2016). So, disability is a state of a person's health where she/he feels difficulty to perform their work. The current world is struggling for free equitable and quality education for all, starting with basic education, secondary, and finally higher education through education for all (EFA). This goal has been adopted by many countries including Nepal. According to the constitution of Nepal 2072, the responsibility for the management of people living with disabilities is on the local government now. Therefore, it is the responsibility of the local government

to develop and implement programs for the welfare and overall management of people with disabilities. Nepal government has made many policies and programs for disabled students. However, a large number of disabled students are not getting an education. According to the economic survey 2075/76, only 76 thousand disabled students were under the privilege of education among the total population (513,321) of disabled. It means still an enormous number of students are deprived of education.

Globally more than 1000 million people lived with some forms of disability, about 15 percent of the population or one in seven people were disabled and about 110 million to 190 million adults were experiencing difficulties in functioning (WHO, 2014). Nepal census 2011 claimed that approximately two percent (1.94 %, 513,321) of the total population of Nepal reported having some kinds of disabilities. In Nepal there are different types of disabilities among them a large number of disabled are in physical disability 36.3 percent among the total population of disabilities and the highest number of physically disabled people 6,030 have been living in Kathmandu (CBS, 2011).

In the academic year 2075, to increase the access of differently abled students only 33 special schools and 23 integrated schools were managed wherein primary level 64 thousand students and secondary level 12 thousand were enrolled (Economic survey, 2075/76). But those schools managed by the government were only focusing on blind and deaf students so problems of physically disabled students such as access to school and unfriendly infrastructure and environment of school have been still going on the same way as previously. Because of that students have been facing many problems in schools and colleges. Colleges should create a friendly environment where disabled students could develop their intellectual confidence, academic abilities along with their peers (Kim & Kutscher, 2020). In the obsence, sometimes they have to face low achievement "the student thus spent time and exerted energy minimizing disability barriers to achieve the grades they deserved by being their own coordinators" (Magnus & Langorgen, 2018, P.14). In my experience, I have seen one of my students had faced the same problem. Whenever she started to ask the question in the classroom either other students made noise or they laughed at her question. I think that happened because of unfriendly buildings and infrastructure. The class was on the third floors. So she used to sit on her bench once she entered her class. If there were friendly infrastructure and environment,

she could go with friends in the canteen and share her feelings with her friends that could help in her study. Students with a disability try to keep a fake smile on their faces to hide their pain for being humiliated in front of their professors and classmates (Hong, 2015). First of all, they have to accumulate the courage to join college because they know there may come many hurdles in their journey of higher education. The decision to go to college for students with disabilities is more challenging than other nirmal students. Finding a desired institution, applying, and enrolling is not easy; they must also cope with a variety of additional concerns and hurdles, such as independence and coping with external pressure, parking wheelchairs, and course choices (Wessel, et al. 2015). After deciding for forwarding steps they started being judged by society and peers "Students with disabilities are struggling with the social threat being judged or treated differently by their peers and their instructors (Hong, 2015, p. 222). They felt humiliated by negative comments and enquiries about their disability. (Marshak et al., 2010). Sometimes lack of understanding by the professor or educated people even create problem to the disabled student in their colleges. "The knowledge and practice of higher education professionals impact the lives of students with disabilities" (Pena, 2014, p.38). Their inability to complete their work becomes excuses for others. Sometimes professors would not believe them if they said their disability was the reason they missed classes, or if they couldn't copy them because they were having trouble balancing time between taking notes and paying attention in class, but professors think they're excused to avoid their work (Marshak et al., 2010). In school and college, some teachers start to behave differently towards disabled students which make them somehow uneasy and uncomfortable. Once the instructors found that they are different from others then they start to treat differently from a normal bodied student (Hong, 2015). Not only this, but some arrogant teachers also humiliate and judge them with other students without not understanding their problem they comment on them openly in the classroom as well. "Students felt judged, humiliated, and embarrassed by instructors either in private or in front of the class" (Hong,2015, p. 214). So, they fight within themselves why they are not able to work as others and treat differently, "they felt conflicted between being a disabled student and wanting to be treated like a normal student" (Hong, 2015, p. 222). But if they got support and encouragement from parents and peers, they could get success in their life as one of the respondents get

success in her professional life but for that, she had done so many struggles. We all need to know that they also have a mind for thinking and they could be successful if they get a chance. Students with disabilities are capable to be successful and achieve high grades as students without disabilities, for that they need to be encouraged to pursue their further education by parents, teachers, and themselves as well as admission policies (Jorgensal et al., 2005). They could do work as others but lack of good environment and proper infrastructure they are not able to show their workability in the way what they have (Longorgen & Magnus, 2020). So, all the educational institutions and faculties should attempt to make friendly infrastructure on how students with disabilities need and encourage them to achieve their goals with political discourses and leadership opportunities (Hang, 2015). In contrast, most of the time they have to prove themselves because our society has a myth that the disabled can not go ahead alone and can not get a good score in exams. Rather help to them they make queries on their success and identity. To establish their identity, students with disabilities have had to prove themselves among their peers as well as in front of the professor (Hong, 2015).

Being disabled is difficult to live as others and being disabled female is a curse in our society because they have to encounter many difficulties such as handling period's time, sexual violence, and abusive behavior. Disabled women and girls experience double discrimination, including gender-based assault, abuse, and marginalization (WHO, 2014). Females with disabilities have to face sexual abuse in the name of helping by male students and even teachers. So, they have been facing more problems than disabled male students. "Being a female student with a disability might be a greater barrier on campuses due to their multiple or cross-sectional minority status in terms of social stratification, barriers and power, compared with males or students without disabilities" (Kim &Kutscher, 2020, p.17). Because of their disability, society's norms and values, power, and family's economic conditions, many disabled students could not raise their voices. The reason for that, people with a criminal mind as much as possible tried to take advantage of that situation. Visually impaired females have been victims of sexual attacks such as being raped and forced into sexual actions, as compared to non-disabled girls, due to dependency, social isolation, and lower financial level (Brunes & Heir, 2018). Not only visual impairment but girls with wheelchairs have also been facing harassment minimum once in their life as one of the respondents

reported.

Even they are educationally able in their field, they are not able to get a job according to their degree. Placement in the job has been influenced by relative and organization's rules where there is no place for disabled ones only those disabled could be selected whose relatives are already there. "Placement is heavily influenced by their relationship with placement staff and the organizational culture of the placement setting" (Hill & Rpger, 2016, p.1215). This culture made them discriminated though they can show their performance they could not get even a chance so they feel there should be equal opportunity. "They felt they deserve to be treated better" (Hong, 2015,p.214). They believe they wasted their lives and ruined their dreams since people don't believe in their work and achievements because they didn't get an opportunity to apply their expertise in their sector where they had seen a dream, invested money, and put in all of their effort. They may assume that putting effort into their work is a waste of time because no one is willing to believe them or their efforts (Hong, 2015).

The main objective of this research is to explore the challenges experienced by female students with a physical disability. I have focused on those female students who be came disabled later due to some diseases and students who have already done masters or currently doing a master's degree. To obtain information during their normal life to till date's experiences I have following research questions; did being disabled female affect your education? If so how? And did you find it easy to apply your knowledge on placement for your job? If no why? I wanted to know whether my past experiences and thoughts are the same, different, or more critical in the real situation.

Methodology

This research is based on interpretivism which adopts phenomenology which is "Concerned with understanding social and psychological phenomena from the perspectives of people involved" (as cited in Groenewald, 2004,p.44). Phenomenologists often identify and understand the problem and lived experiences through their language, beliefs, and behaviors. They open or keep active their all sense organs to understand their respondents' experience as much as possible. Phenomenologist always stays aware to "explore the belief, languages, and behaviors and issue facing the groups" (Creswell, 2013, p.949).

Due to the pandemic (COVID-19) it was very difficult to go out and collect the sample respondents. So, to collect and trace additional respondents for

information, I used the snowball sampling method which "is a method of expanding the sample by asking one informant or participant to recommend others for interviewing"(as cited in Groenewald, 2004, p.46). So, first I contacted different disabled people to get suitable respondents for my research. Some male and some with visual impairment students were in my contact, through them I was able to contact three female disabled students for my research. In snowball sampling respondents suggest others who have a similar character or as like him or her (Etikan, Alkassim & Abubakar, 2015).

Open-ended questions were asked to the participants as like conversation was going between two friends because I had already phoned them many times to make them easy and comfortable. I let them speak more than I did; each respondent was interviewed for about 40 minutes to an hour, and each respondent was interviewed twice to ensure saturation. The entire interviews were recorded with the consent of the respondent and pseudo names have been given for the respondents in the findings and discussion part of this research. I also assured that the information they provided would never be used for anything other than this research purpose.

Results and Discussion

Lack of supportive activities

Physically disabled students have been experiencing and facing many challenges in the academic field and society. Especially in the academic field, they are ignored and discriminated by the students and teachers. They are facing unequal opportunities in the academic field and society. Even they have been stigmatized by the teachers and peers (Nel et al., 2015). Most of the time, it's difficult to get support from friends, teachers, and society for them. Friendship is a connection in which people share their joys and sorrows. In the case of disabled students, the situation is reversed; their friends want to isolate them as much as possible in order to keep them out of their group. According to Hulzler (2015), the behavior of normal students, children with learning difficulties are not required to their peers. During class, students experience unfavorable social comparison, social isolation, and bullying (Haegle & Sutherland, 2015). Because of their infirmities, even their dearest friends become hesitant to speak with them when they become paralyzed. Paru, one of my respondents, shared her similar experience.

She said after being paralyzed, my friends changed their behavior. They ignored me and stopped talking to me. They thought if they came near, my disease could transfer to them. I was quite unhappy even one of my best friend showed behaviors

similar to others, and I felt terribly sad and lonely at the time because that was not my expectation.

Such behaviors discouraged them from interacting with their friends, and they began to isolate themselves in order to avoid such behavior and questions about their disability. One respondent, Sara, said to avoid more questions on my physical structure, I have been lying, it had happened by my birth. They hide their reality to avoid questioning and sympathy because if they reveal it happened after birth, they will have to answer and others will think they have a disease, so they lie to avoid such circumstances.

Teachers and staff members of the school could help to reduce the discrimination and create a conducive and helpful environment in the school. So, teachers are the most responsible persons for the development of students' achievement and creativity. Teachers at schools and colleges could do a lot to help their pupils overcome the stigma of "disability" that they have been facing (Kim &Aquino, 2017). Browing (2002), mentions that "teachers play an important role by providing a student with optimal physical, functional and language contexts where literacy can develop." Generally, a teacher is that person who teaches students good behaviors and discipline but all the

teachers don't do as we think, they don't understand the student's problems. In this point, one of my respondents Paru mentioned that "One of my master's professors compelled me to submit a typed written portfolio despite the fact that he was aware of my situation. I requested for a handwritten portfolio from him, but he refused." Some teachers believe that pupils are nothing and they may humiliate them at any time because of their superiority complex. Another respondent Kiran said "One day, I could not reply a question's answer in English and my teacher scolded me asking why did you come to private college? Who gave you admission in our college if you didn't know English well?" Firstly, disabled female students have to accumulate the courage to join the school after disability at the same time, some arrogant teacher made them think to admit in the school by their behavior. Not only this, a female student has to face more problems. Some teachers try to harass them physically again Kiran said "One of my teachers used to come close to me and touch my body very unknowingly, but I could not tell anything just felt harassed myself; eventually, he left that college." To take advantage of their physicality, some teachers show unnecessary behavior to take care to touch and harass the female disabled student because they know that

students could not complain against them. So, to eradicate such supremacy thought of teachers there should be a friendly environment where all students can raise their voices against the harassment.

Normally, it's very difficult to get a job because of power and politics. Regarding disabled people, it's tough to get a job in the private sector even they have mastery on that subject. The disabled student can participate in the physical activities but able-bodied peers continuously isolate them from the activity (Haegele & Sutherland, 2015). Our society has a poor mindset that the disabled could not work as others even they do doubt on their achievement so they as much possible don't want to recruit as an employee. If they got a chance to work with them, they would not give them to do their responsibility. One of my respondents Sara who has done master on journalism experienced the same thing,

If I write articles, I doubt they will be published because of power and politics. Some of the job centers place a greater emphasis on my physical body than on my intellectual mind, they only say verbally but don't provide job practically and show sympathy. But I don't like their sympathy if I believe I am normal for doing anything but why they don't believe so, why do they stare on my leg first, why can't they look on my eyes while talking and giving

responsibility. I think that no one could be an absolute. If I get the chance, I also can try to give 100 % as I can, even though normal people could not do perfectly.

Such behaviors press them to take back their footstep. They have to stop themselves even they have the courage, energy to do something new. Not only outsiders even they have to face discrimination and humiliation inside the organization and within their community. People who have power they get the job, could show their ability and raise the voice but others should follow according to their command. One of my respondents Kiran said,

We have not being ignored by others rather than within our circle. They believe that others should not use such phrases for disabled persons, yet they themselves use words like lato, langodo, andho, and apanga. So, before we point fingers at others, we should stop using such words and respect one another. And then only we can hope respect from others for us.

It shows that there is a lack of supportive environment for disabled females from their friends, teachers, and even from their own community which is directly affecting their self-confidence and demotivate them to go for further study and take decisions. So, first of all, we should respect and support each others only then

others will do so and an unsupportive environment may come down gradually. According to the constitution of Nepal (2072), right to equality, "no discrimination shall be made in the application of general laws on grounds of origin, religion, race, caste, sex, physical condition, condition of health, marital status, pregnancy, economic condition, language or region, ideology or on similar other grounds." But still, we can see the inequality and discrimination in educational institutions, offices, and society.

Infrastructure as a barrier

Disabled friendly infrastructure is mostly important for the disabled students to get education. Because of unfriendly infrastructure students have been facing many problems such as could not attend all the classes, difficult to use toilet, and climb up the stairs so it has been becoming a barrier to the students. According to the World report on disability (2011), physical access to the school building is an essential requirement for the student with disabilities. But in reality, they have been facing many difficulties in traveling to the school because roads are unsuitable for them even if they reach in the school there may be problems of stairs, narrow doorways, inappropriate seats and inaccessible toilet facilities. Most of the schools and colleges are not accessible

for physically disabled students they are facing problems in entrances, classrooms, and toilets of the school (Brussels, 2018). Paru mentioned, "Even in our T.U., there is no good and proper infrastructure for disabled persons, therefore I used to ask the support of friends to attend classes upstairs." They have to adjust to normal school themselves. So, they get difficult to use toilet, to get into the exam hall and classroom. Another respondent added, "I wish not to be exam center in TU because if the exam center is in TU I have to be there before 2 hours because it's really difficult to get the exam room." Because of inaccessible infrastructure, they have to ask for help from their friends which made them sad, helpless, and psychologically upset again Paru said "Well, each step I feel bad by seeing all friends doing their work themselves. They can do whatever they like but I couldn't do like them." She doesn't like to take help and sympathy from her friends so she feels bad when they come to close and try to help her. If the infrastructure was accessible many disable's problems could be solved.

Lack of access for the students who use a wheelchair they have to leave the classes and even crutches users tired to find out their way for the classroom, they have to spend more energy than normal students only to find out the lecture hall (Net et al.,

2015). Students with disabilities (especially wheelchair users) need more surface than others to write and adjust in the classroom (Alexander, 1979). Sometime, wheelchair user must leave their classes because of the inaccessible infrastructure of the colleges and school because all classes don't run on the ground floor. They leave those classes which run on the second and third floor. In this situation, Kiran said, "When I was studying my masters, classes were disorganized; sometimes they were on the first and second floors, and sometimes they were on the ground floor, so I only went to classes on those days when they were on the ground floor."It shows how many difficulties they have been facing because of the infrastructure. The constitution of Nepal (2072), has mentioned that the "citizens with disabilities and the economically indigent citizens shall have the right to get free higher education in accordance with the law." However, the data shows that this right is written in the constitution, it is not exercised. There is not even an accessible classroom in the college and school how could be applied the free education for disabled, it raises the questions itself, is it possible and applied in the reality?

According to the National Census (2011), the total population of disabled 513,321 among them 36.3 percent is physically disabled. In the economic year,

2077/78 government has been planning to run 13 schools for multi-disabilities (Annual Development program, 2077/78). Almost schools which are running in Nepal focused on the deaf and blind student. So, it's really hard to get a special school for the physically disabled student at this point Sara said,

There is no special school for physically challenged students. They think that physical different people can hear, speak, and see. However, this is insufficient, and we require nice environments and accessible infrastructure. In fact, the government has placed little focus on persons who are physically different.

Education became only for tag

Everyone has the right to be educated on their choice's subject but some criteria which have been created by society and discipline, disabled students have to be limited on some subject where they don't have an interest. The disabled student who became disabled later, they have to leave their dream because of their physicality one of my respondents Paru said, "I still think that if a miracle happens in my life and I become physically fit by changing this capacity, I may return to MBBS, but I know that miracles do not occur in my life." Paru has become paralyzed at the age of 16 due to migraines. She lost the ability to move her left side of her body so she had

to leave her dream to be a doctor, had to study another subject was never her choice but because of that incident, it was the compulsion to choose another subject.

Not only her many disabled students have to leave their dream because of the myth in education that disabled students could not study and work as others. The school and college faculty's behaviors and responses directly or indirectly determine and play an important role in the success and failure of disabled students, and a lack of understanding about disabled students' reasonable accommodations and teachers', staffs' perceptions and behaviors toward them can become a barrier to disabled students' participation in school (Johnson, 2006). After getting mastery on the subject they have to face many challenges to get a job according to their study and again they have been isolated and jobless as my respondent Sara shared,

Only I received a certificate but haven't got a job yet. My education is only for the purpose of obtaining a certificate and to demonstrate that I am an educated person. Even though I have a master's degree in journalism, I have never worked in the media. So I'm not sure why I pursued a journalism master's degree. So sometimes, I feel and regret why I studied masters in journalism.

She has a Master's degree in journalism, yet she is still dealing with the same issue. She was not accepted by her coworkers, and they used to criticize her work and abilities as well, so she gave up her dream. In the lives of youths with disabilities, social isolation and a lack of career prospects generate several difficulties and stress (Thomas, Box & Smyth, 1989).

Not only colleagues and friends even family and relatives also become a barrier to their study. They think, after disability they could not do anything, they are only responsibility and burden for the family. As Kiran expressed,

I wanted to be a good teacher before I was hurt, but it happened all of a sudden and left me disabled. All of my relatives were initially opposed to my intention to study, and they refused to send me to higher education. They used to think that going to school was worthless, I could not do anything in the future and they used to say that we will fulfill your basic need so just stay at home eat and wear whatever we provided you. To get out, I had to go through a struggle. But because my parents were so supportive, I am now here.

According to the constitution, education is a fundamental right of a child, and no one can prevent him or her from receiving an education. Our society still has the same attitude toward the disabled,

believing that they require assistance, they cannot do anything for themselves, they have no future prospects, and they should not study; they show sympathy for them. However, times have changed, and disabled people can now do and live as they choose; society must be aware of this, respect their efforts, support them, and act in the same manner as others.

Conclusion

Being disabled, it's not easy to live our dream because of our patriarchal society and narrow thinking. There are many unemployed educated youths even they are physically fit and fine. So, we can imagine how difficult to get a job for disabled females who have only the courage to do work and certificates. They have to encounter many problems from their family members, society, and their welfare forum. There is problem to live freely even being an able-bodied girl who can fight physically and intellectually. We can imagine the situation of those girls who are unable to protest by physically. People try to take advantage as possible from their intellectuality and physicality. As the WHO report shows females with disabilities have to face double discrimination, gender violence, abuse, and marginalized behaviors. This study proved that disable females have been facing many problems like uncomfortable and abuse throughout ideal personality. They have been miss judged by their peers, colleagues, and society just because they got success in their study and in their professional life. One of the respondents said that she must get a job in the government sector at any cost because there is very less chance to join a job in the private sector. In this situation, if she could not get success to get a government job, she might face the same problem as other females with disabilities. So, to reduce such behaviors and activities the government should make a strong policy in the favour of female disabled people who have dreamed to do something for the nation and themselves. Above all, the policies to ensure equality and equity should be implemented in practice without any hidden discriminating attitude. Concerned department and ministry should focus their plans and programs in creation of job opportunity for all qualified female disables to uplift their social, psychological and financial status in the society.

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Persuasive communication strategy as a guiding theoretical framework to positive health behavior change

Yadu R. Upreti*1, Prakash Sharma2

1 Assistant Professor of Central Department of Education, TU (*Corresponding Author)

ORCID: https://orcid.org/0000-0002-2705-1209

2Assistant Professor of Department of Education, Butwal Multiple Campus, TU

ORCID: https://orcid.org/0000-0002-7197-4502

Abstract

Persuasive communication models are guiding theoretical frameworks to anticipate peoples' health behaviours within a shorttime. They have been used in practice to influence people to adopt healthy behaviours. This paper aims to review the use of persuasive communication models that have been used in the field of health education and promotion to positive health behaviour among people. This theoretical overview paper is developed based on the secondary data source from the published literature. This study contends that Yale Attitude Change Model, Elaboration Likelihood Model (ELM), and McGuire's six stages persuasive communication models are practical to influence people's health-related behaviours. The study suggests to health educators and professionals to use persuasive communication models as the strategy for positive health behaviour change of the target audience. We suggest using these models as the guiding frameworks to explore how human behaviours intend to change.

Key Words: Persuasive communication, Health education and Promotion, Health behaviours

Introduction

The word communication refers to sharing information. Basically, communication deals with transmitting or exchanging information and ideas(Ramchandran & Dharmalingan, 1976). Communication is an essential, instrumental, and purposeful transactional process that has a vital role in any action that brings positive change in the health behaviour of people through informed choices(Sherchan& Upreti, 2074). The successful interaction between the communicator and the target audience depends on strategic communication models.

Persuasive communication refers to any message intended to shape, reinforce, or adjust the responses of others (Miller, 1980). Modern persuasive communication addresses the audience's needs, values, and desires.Perloff (2003) defines persuasive communication as a symbolic process in which communicators try to convince people to change their attitudes or behaviour regarding an issue by transmitting a message through informed choices. Persuasive communication intends to change people's cognition, attitude, and practice. Persuasive communication can change an individual's belief, understanding, and most importantly, change an individual's behaviour, which is the overt action towards an object or issue. There are two general means ofpersuasive communication: rational appeal and emotional appeal. A rational appeal uses logical arguments and factual evidence to persuade individuals via advocacy, which is viable and likely to achieve goals. An emotional appeal is designed to arouse emotions among the recipient, and using emotion is a basis for persuasion(World bank, n.d).

Persuasive communication models are commonly used in health education and promotion to change the positive health behaviours of the people especially to influence the antismoking, anti-drinking, and anti- drug-abusing behaviours of the people(Perloff, 2003; Sidhu, 2015). Using persuasive communication models in health education and promotion encourage people for healthy behaviours through informed choices rather than forceful (Atkin & Salmon, 2013; Perloff, 2003; Young, 2017). Persuasive communication model can be used as an effective means to anticipate positive health behaviours of the people within a short time.Various persuasive communication models have been applied over the past decades; however, Yale Attitude Change Model, Elaboration Likelihood Model (ELM), and McGuire Persuasive Communication Model (PCM) are vital in the field of health education and promotion(Corcoran, 2007). Thus, this paper aims to critically review the use of persuasive communication models that have been used in the field of health education and promotion to the positive health behavior of people.

Methods and Materials

The secondary sources of data based on the published seminal books and scholarly articles were used to prepare this theoretical overview paper. The related literatures were mapped out through web surfing from Google search and databases like Google Scholar and PubMed.

Results and Discussion

This paper critically reviews the use of the Yale Attitude Change Model, Elaboration Likelihood Model,

and McGuire Six Stages persuasive communication models that have been used in the field of health education and promotion to positive health behaviours change of people.

Yale Attitude Change Model

Carl Hovland and his associates used this model in the 1960s for the first time, which focused on learning as a component of persuasion. Hovland and his associates belonged to Yale University, and thus they named the model as Yale Attitude Change Model of Persuasive Learning. This model is a theory-driven approach, which believes that attitude change does not come all of sudden but it occurs in a series of steps. This model includes three sets of factors: the source of communication, message learning, and attitude change of audience, which enables reaching the intended attitude (Perloff, 2003). This is further illustrated in figure 1:

Source of Communication
- Source specialization
- Source credibility
- Source status
- Audience love to source

Message Learning
- Attention
- Comprehension
- Learnability
- Acceptance
- Retention

Attitude Change of Audience
- Audience characteristics
- Hostility
- Self-esteem
- Richness of fantasy

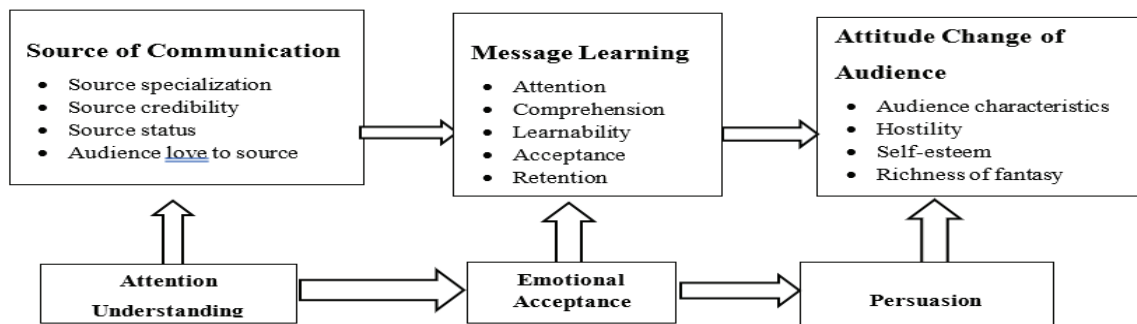**Attention Understanding** → **Emotional Acceptance** → **Persuasion**

Fig 1.Yale Persuasive Communication Model (adapted from Perloff, 2003; Corcoran, 2007)

Fig 1 depicts that the sources of communication play a crucial role in persuasive communication. Persuaders can easily transmit their ideas if they are specialized in a topic. The sources must be trustworthy to the audience. High credible sources are more effective to change the audience's attitude. The attention and understanding of the audience towards the source of communication enable them for prompt reaction. According to Perloff (2003),a communicator has three fundamental characteristics: authority, credibility, and social attractiveness. Hovland pointed out some factors that must be included in the message. The message must pull the audience's attention and it must be comprehensive and learnable. When the audience accepts the message, they quickly develop the retention of the message according to their level of learning. The message should be enough valid to arouse emotion among the recipients. The third factor of this model is the attitude of the

audience. This model focuses on the role of the audience that affects their readiness to be persuaded. The personal characteristics of the audience play a significant role to determine the predisposing factors that enable communicators to adopt the tactics of communication accordingly(Corcoran, 2007; Perloff, 2003).

Yale model can effectively be applied in both health education and promotion fieldsthat profoundlyinfluencepeople's attitude. The considerable evidence of this model is that learning is a component of persuasion. The more people learn and comprehendmessage arguments, the more likely they will accept the positions (Chaiken, Wood &Eagly, 1996 as cited in Perloff, 2003). This model is considered the best to persuade people's attitude since attitude is the disposition of people that leads towards the successful completion of desired behaviours(Corcoran, 2007). This model enables to change people's attitude in a series of steps. Health educators

can apply this model to change people's attitudes and change their complicated attitudinal behaviours. However, this model has some potential limitations as it does not include people's mental reactions like pro-arguments and counter arguments; rather, it assumes that people are sponge-like creatures who passively receive the information (Perloff, 2003).

Elaboration Likelihood Model

The Elaboration Likelihood Model (ELM) of persuasive communication was developed by Richard E. Petty and John T. Cacioppo in 1986. It offers a more comprehensive framework for understanding communication strategy. This model emphasizes that one cannot understand communication effects without appreciating the underlying processes by which messages influence attitudes (Perloff, 2003). This model focuses on two different mechanisms by which communications affect audience's attitude. This can further be explained in the diagram (see fig 2):
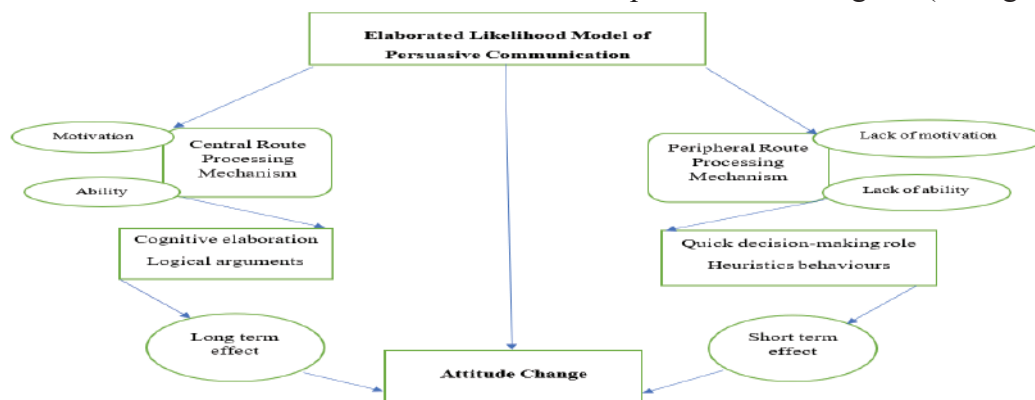

Fig 2. A Conceptual Framework of ELM of Persuasion(modified from Perloff, 2003)

It is depicted from figure 2 that there are two different mechanisms of communication naming to central route and peripheral route of processing message that affect the attitude of audience in different ways. The central processing mechanism is characterized by cognitive elaboration and logical arguments, which are affected by motivation towards the message and ability to argue on it. This mechanism results in a long term effect to change the audience's attitude. Another mechanism of processing messages is the peripheral route, characterized by quick decision-making and heuristic behaviours. And these cognitive behaviours occur due to the lack of motivation towards the message and a lack of ability to argue the message critically. This mechanism results in only short-term effects to change the audience's attitude (Perloff, 2003). Scholars suggest that changing the audience's attitude via a central mechanism would always be significant (Atkin & Salmon, 2013; Corcoran, 2007; Perloff, 2003). However, depending on the situation, the peripheral mechanism can also be used to persuade people's attitudes.

ELM can be applied to engage the audience in issues relevant thinking. This model enables to change people's attitude in a series of message processing steps. This model can also be applied in both classrooms learning settings and influencing the attitudinal behaviour of people in the community. ELM stipulates changing the audience's attitude through dual cognitive processes: central and peripheral message processing. If the audience cannot change attitude through the central route, it is not the end, rather audience can persuade via the physical appeal of the speaker which is called peripheral cues. This model is useful to develop high cognitive skills like arguing and reasoning. Health educators can apply this model to change faulty attitudes and change complicated attitudinal behaviours of learners.

Most importantly, this model can be employed to persuade the consumer's attitude towards the choices of health-related goods, products, and services. Despite the high prospectus of ELM in the health instruction and health research field, it is not free from critiques. Since this model has explained all possible outcomes, it is not always possible to persuade people only through the central and peripheral route of processing messages. People may have predisposition factors that may resist being persuaded. And next critique is that physically appealing the people is not always possible to persuade them in a real-life situation (Perloff, 2003).

McGuire's Six Steps Model

Persuasive communication, as a model in health education, began in

the twentieth century. The persuasive communication model, explained by McGuire first in 1976 and last in 2001, is different from other models. Its uses are mostly found in advertising health-related products and services which are called social marketing (Atkin & Salmon, 2013). Other traditional communication models predominantly focus on a small scale and at the risk population, but the persuasive communication model has guided public health by using mass media, which includes the examination of consumer behaviour in response to messages (Corcoran, 2007; Rice & Aktin 2001).

This model proposes three factors that influence person's choice. External factors include price or location, internal directive factors that include individual attitudes or beliefs, and internal dynamic factors that include demographic characteristics such as age or ethnicity (Corcoran, 2007). McGuire's communication model includes six steps that move from easiest to the hardest level, which is illustrated in fig 3. McGuire's communication begins from the presentation of the persuasive message, it is followed by the receiver paying attention to the message, comprehension of the arguments conveying the message, the receiver agreeing with message arguments, the message is retained in the memory, and receiver behaves in line with message arguments. And these stages pass through easy to hard directions, as shown in figure-3.
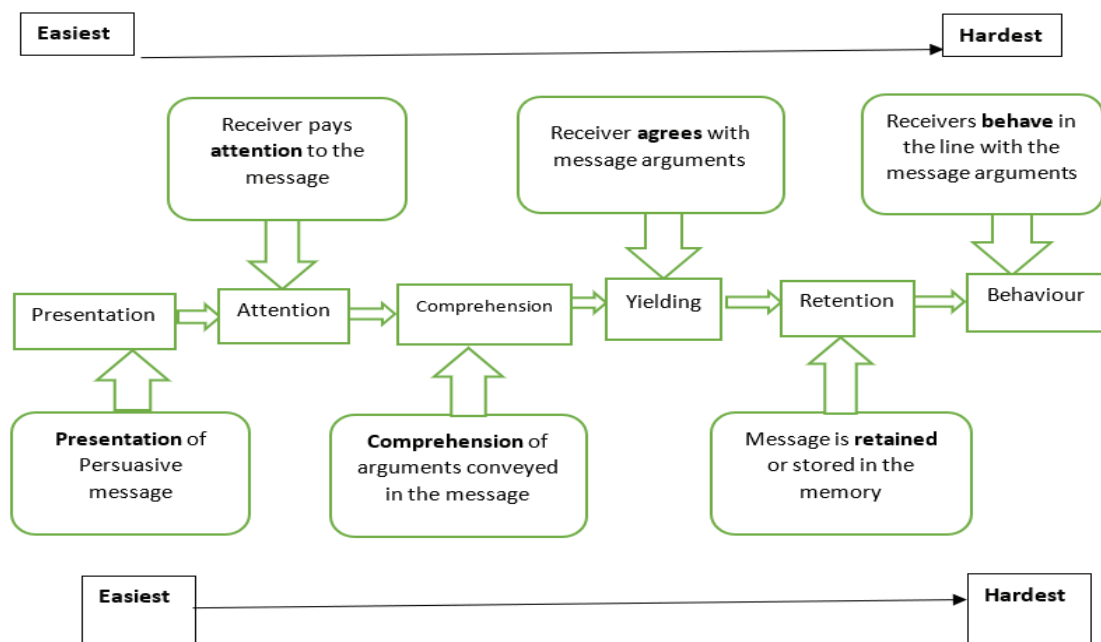

Fig 3.McGuire's six Steps Persuasive Communication Model

McGuire's model can be characterized as an input-output matrix that can be manipulated and measured to achieve a change. The communication 'input' factors contain five separate stages of communication: source, message, channel, receiver, and destination. These input variables provide options for health practitioners to select and manipulate. These 'input' variables are the main step in achieving the 'output' variables. According to McGuire (1989), 13 output variables (or stages) are a sequence of events that must take place in an order from first to 13th to have an effect of a change to happen. It is assumed that a person cannot complete any proceeding stages without completing preceding ones (Corcoran, 2007).

Table 1. Input-output Variables for Persuading the Behaviour of People

Input Variables (Preceding)		Description
1	Source	Demographics, credibility, attractiveness etc.
2	Message	Appeal, organization, style etc.
3	Channel	Type of media used, i.e., television
4	Receiver	Demographics, social/psychological factors
5	Destination	Immediacy/delay, prevention/cessation
Output Variables (Proceeding)		Description
1	Tuning in	Exposure to the message
2	Attending	Paying attention to the message
3	Liking	Liking and being interested in the message
4	Comprehending	Understanding the message
5	Generating	Related cognitions
6	Acquiring	Gaining the appropriate skills to act on the message
7	Agreeing	Agreeing the message is correct
8	Storing	Saving the message to memory

9	Retrieval	Retrieval of the message from memory when needed
10	Decision	Acting on the message
11	Acting	Performing the action
12	Post-action	Integration of the action into behaviour
13	Converting	Advising others to behave likewise

(Adapted from McGuire, 200 as cited in Corcoran, 2007)

McGuire'smodel is distinct from Yale and ELM model since it is intended to persuade the audience's behaviour via mass media tactics. The use of McGuire'smodel is mostly found in social marketing (Atkin & Salmon, 2013). This model has obvious planning stages that can be followed to persuade positive health behaviours. The model can also help practitioners to identify and consider channels and strategies that can influence the campaign outcomes.

Along with these strong points, this model also passes through some critics. These include having an overly restrictive number of steps for a behaviour change. Huhman (2004) suggests that as the audience processes a message, a percentage of these audiences are lost at each step (as cited in Corcoran, 2007). Therefore,to make this model more effective high exposure and awareness levels are essential.

Conclusion

This review paper concludes that the Yale Attitude Change Model, Elaboration Likelihood Model, and McGuire Six Stages persuasive communication models effectively influence people's health-related behaviours that emphasize changing human behaviour, focusing on the attitudinal aspect. This study suggests that health educators and professionals can use persuasive communication models as the strategy for behaviour change. Further, the bonafide researchers of health education and promotion can also use these models as the guiding theoretical framework to explore how human behaviour intends to change.

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Spatial Patterns and Trends of Maternal Mortality in Nepal

1Bimal Singh Bist, 2Sampurna Kakchapati*, 3Sonu Basnet, 4Subash Neupane

1PhD Scholar, Tribhuvan University

2Nobel College, Pokhara University

3Dhulikhel Hospital, Kathmandu University

4Institute of Crisis Management Studies, Tribhuvan University

*Corresponding

Abstract

Objectives The aim of the study was to investigate the spatial and temporal variation of maternal mortality in Nepal in order to identify trends and possible high-risk areas.

Methods The study was based on a retrospective analysis of maternal deaths from the annual reports (2001-2014) of Department of Health Services in Nepal which has institutional maternal health service uptake and recorded maternal health information. The maternal mortality ratio was calculated from records, and model by the negative binomial model. Results The overall mean maternal mortality ratio was 135 maternal deaths per 1,000,00 live births. Maternal mortality showed a sharp decrease for the year 2001 to 2007, followed by a more moderate upward trend until 2009 and drop to 2015. There were pronounced spatial variations with higher rates occurring in the mountain region, with relatively moderate and relatively low rates in the Hill and Terai regions, respectively. Maternal mortality was also higher in rural areas. Conclusion Maternal mortality showed a steady decreasing trend, but the number of cases was still very high. Higher deaths were observed in the Mountain Region and rural areas. These findings highlight the need for the control measures to remain on a sustained and long-term basis for the high burden areas of Nepal.

Keywords: Maternal Mortality, Spatial, Temporal, Nepal

Introduction

Maternal mortality remains a leading cause of death worldwide among women of reproductive age especially in developing countries like Nepal. Maternal health refers to the health of women during

pregnancy, childbirth and the postpartum period [1]. It integrates the field of health care with women's sexual and reproductive rights, representing an event of great magnitude and transcendence [2]. Maternal mortality is a public health issue where 289,000 women die during pregnancy or childbirth in every day in the worldwide in 2013, with a maternal mortality ratio corresponding to 400 deaths per 100,000 live births and a risk of maternal death of one in every 92 pregnancies. About 800 women die from pregnancy or childbirth-related complications around the world every day. Complications during pregnancy and delivery are the leading cause of morbidity and mortality in women of reproductive aged of 15–44 years [3]. The majority of maternal mortality occurred in low-income countries, where there existed strong link between reproductive risk and high fertility, low literacy, poverty, lack of access to health services and poor-quality medical care [4, 5].

Improving reproductive health has been a major concern since the late 1980s and has been highlighted as a priority in international politics, its importance was gain underlined at the Millennium summit in 2000. United Nations' eight Millennium Development Goals (MDG), ratified in 2000, which include a 75% reduction in the maternal mortality rate by 2015 [6].The high maternal mortality reflects inequalities in access to health care in developing countries. It has been shown that 80% of worldwide maternal death could be prevented if women had access to maternal health care services. Women are less likely to die during pregnancy, delivery and the postpartum in recent years and most of them are avoidable. Though, Nepal has made remarkable progress in reproductive health in the last 20 years, maternal mortality figures vary widely by source and are highly controversial. The maternal mortality ratio has declined from 850 per 100,000 live births in 1990 to 229 per 100,000 live births in 2011 [7]. Much of this decline was attributed to increased use of Family Planning and improvement in access to and utilization of health services. Similarly, women receiving antenatal care from skilled providers, women giving birth with assistance from a skilled provider and Contraceptive Prevalence Rate have significantly increased which aid in decreased maternal mortality. Even though the mortality is still high, this figure shows that Nepal is on track to achieve MDG. At the moment, we are far behind the two targets. Despite the progress, there are still several challenges to achieve the Millennium Development Goal (MDG) target to reduce maternal mortality to 134

by reducing the fertility rate to 2.5 percent and increasing the contraceptive use to 67 percent by 2015.

Several Studies and Nepal Demographic Health Survey (NDHS) report provides evidence that the magnitude of maternal mortality infection across the country is alarming and varies across locations [6-8]. Maternal mortality varies in Nepal per distribution of regional differences; it is higher in women living in rural areas and among poorer communities. The maternal mortality was increased with age and it was considerably higher among aged over 35 years (962 per 100,000 live births). Differences between ethnic groups were also existed in Nepal, higher mortality rates were found among Muslims, Terai / Madhesi and Dalits [8].

Public health officials are often required to evaluate the impact of disease in a region. They need to measure incidence and mortality of disease in regular intervals for necessary actions and possible interventions. Statistical models are used to understand disease epidemics, incidence, and mortality and to predict the effects of different interventions. Moreover, the regional and temporal patterns of disease need to be assessed regularly to indicate areas with disease burden and possibly predict the trends of disease. The objective

of the study was to investigate spatial patterns and trends of maternal mortality in Nepal from 2001 to 2015.

Methods

Data for maternal death were compiled from annual reports of Departmental of Health Services (DoHS) for the 15 year period from 2001 to 2015. These data are entered in Microsoft excel comprising characteristics of the deaths, lives births, year and location. Residential area (by district) and year were selected as the explanatory variables in studying the maternal mortality.

Since populations of districts in Nepal vary substantially, we computed the maternal mortality in aggregated districts called "super-districts", defined as regions comprising contiguous districts in the same zone with a 2015 total population of above 140,000, as shown in Table 1. We thus obtained 64 super-districts listed in order of geographical location from far western to eastern (keeping districts within the same zone together). The formation of super districts in Nepal has been explained elsewhere [9].

Measures of Maternal Mortality Ratio (MMR)

The Maternal Mortality Ratio (MMR) is defined as the number of

maternal deaths during a given time period per 100000 live births during the same time period. Maternal Mortality Ratio includes deaths during pregnancy, childbirth, or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, for a specified year.

Statistical methods

Poisson regression is commonly used for modeling the number of cases of disease/deaths in a specific population within a certain time period. If λ_{it} denotes the mean maternal mortality ratio for geographical location iand year t, an additive model with this distribution is expressed as $\quad h\left(\lambda_{it}\right) = \ln(P_i) + \alpha_i + \beta_t$ (1)

In this model, P_{it} is the corresponding population at risk in 1000s and the terms α_i and β_t represent location and year effects that sum to zero so that μ is a constant encapsulating the overall incidence.

But the poison distribution the events are assumed to be independent and it account for discreetness, over-dispersion and serial correlation. The negative binomial model is an extension of the Poisson regression model that allows for over-dispersion [10]. If λ_{it} denotes the mean

incidence rate in super district iand year t, an additive model with this distribution is expressed as $\quad h\left(\lambda_{it}\right) = \ln(P_i) + \alpha_i + \beta_t$ (2)

The terms α_i and β_t represent super district and year effects and P_{it} is the corresponding population at risks in 1000s, respectively, and are centered at 0, so that μ is a constant encapsulating the overall incidence. The variance of this distribution is $\lambda_{it}(1 + \lambda_i / \theta)$ with the Poisson model arising in the limit as $\theta \to \infty$.

Model fitting is performed by the linearity in the plot of deviance residuals against normal quantiles. Confidence intervals for comparing the adjusted mortality within each factor with the overall mortality were obtained using sum contrasts [11]. From the model, the confidence intervals for factor-specific maternal mortality ratio divide naturally into three groups according to their space entirely above the mean, around the mean, or entirely below the mean. This trichotomy was used to plots maps of super-districts according to their estimated annual maternal mortality ratios. The confidence intervals compare the adjusted maternal mortality ratios within each factor with the maternal mortality ratio.The R program was used for all statistical analysis, graphs

and maps [12].

Results

Preliminary analysis

During the study period (2001-2015), 6,095 maternal deaths were notified. The incidence of maternal mortality ratio by year is shown in Table 1.The maternal mortality ratio fell from 270 per 100,000 in 2001 to 63 per 100,000 in 2015.

Table 1: Maternal Mortality Ratio in Nepal by Year

Year	No of Maternal Deaths	No of Live Births	Maternal Mortality Ratio/1,000,000
2001	373	136,231	273.8
2002	300	152,088	197.25
2003	378	254,999	148.24
2004	298	267,373	111.45
2005	395	280721	140.71
2006	325	309906	104.87
2007	333	351471	94.74
2008	677	315513	214.57
2009	816	315879	258.32
2010	546	309969	176.74
2011	434	324258	133.84
2012	320	364712	87.74
2013	444	351560	126.29
2014	275	369689	74.38
2015	181	286039	63.27

Statistical Analysis

The results of the model fitting are shown in Figure 1. The left and right panels show plots the deviance residuals against the normal quantiles based on the Poisson model and negative binomial model. Clearly, the residuals plot from the negative binomial model fit the data well than that for the Poisson model.

Figure 1: Diagnostic plot for Poisson and negative binomial models
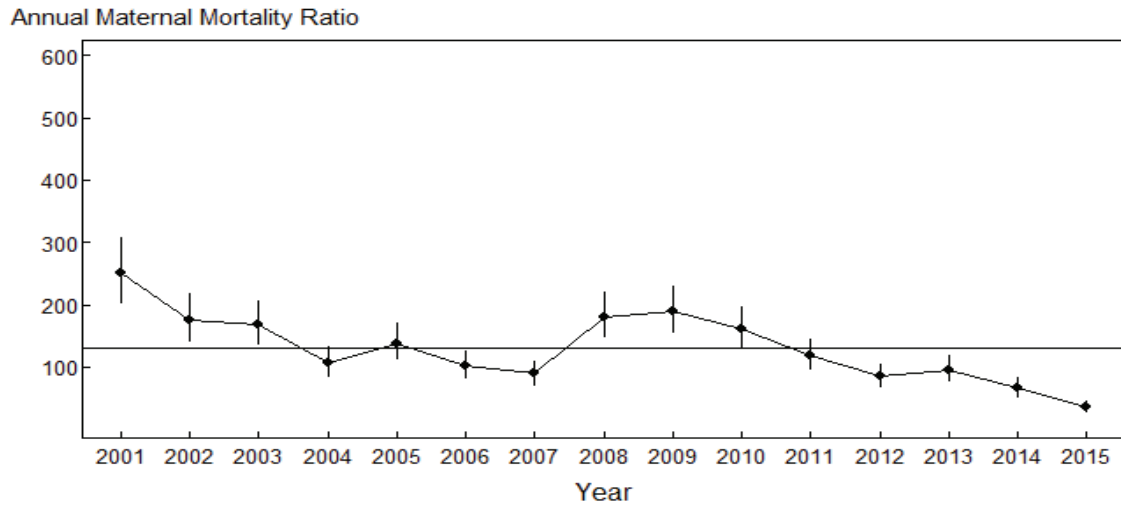
Annual Maternal Mortality Ratio

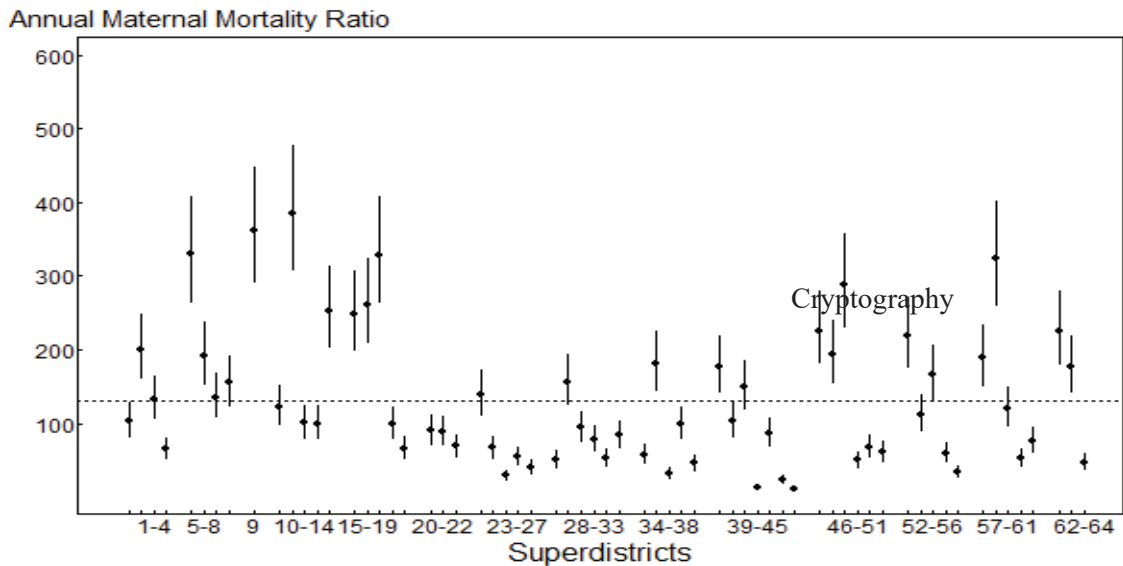Figure 2 shows 95% confidence intervals for maternal mortality ratio by year adjusted for districts. The horizontal dark lines denote mean maternal mortality ratio (135 deaths per 100000 live births). Maternal mortality ratio showed a moderate decrease trend for the year 2000-2007, followed by increase until 2009, with fall in recent years.

Figure 2: Annual Maternal Mortality ratio by year, adjusted for district
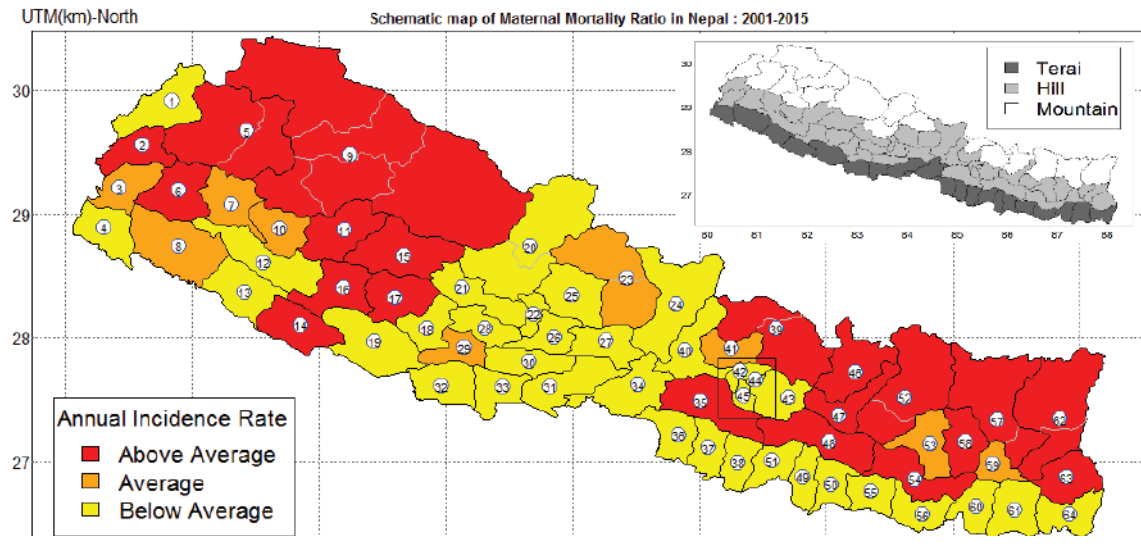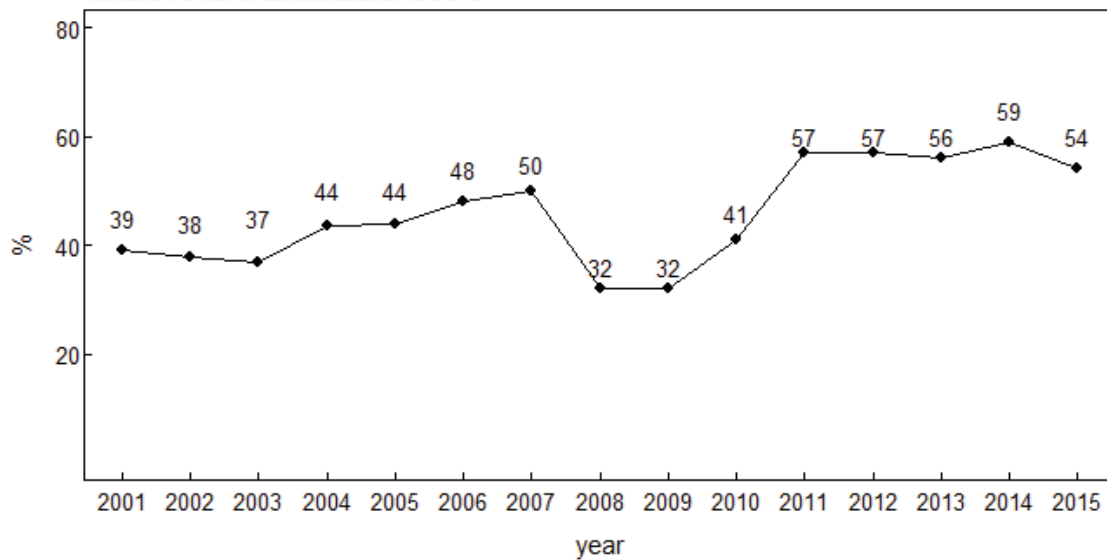
Annual Maternal Mortality Ratio

Figure 3 shows 95% confidence intervals for maternal mortality ratio by super-districts adjusted for year. The horizontal line denotes the mean maternal mortality ratio

(135 deaths per 100,000 live births).

Figure 3: Annual Maternal Mortality ratio by district adjusted for year

Super-districts with 95% confidence intervals above the mean in Figure 3 were categorized as having a higher than average incidence (darkest shade), while districts with 95% confidence intervals below the mean were categorized as having a lower than average incidence (lightest shade) and super-districts with confidence intervals not evidently different from the mean were categorized as average (intermediate shade).

About 20 super districts were categorized as having a higher than average incidence, 9 super districts were categorized as average and 35 super districts were categorized as having a lower than average incidence (lightest shade). Figure 5 shows a thematic map based on this classification.Between 2001 to 2015, maternal mortality was highest in most of super districts of mountain region and moderate in super districts of hilly and terai region.

Discussion

The overall mean maternal mortality ratio was 135 maternal deaths per 1,000,00 live births population. As for the entire country, maternal mortality ratio showed a moderate decrease trend for the year 2001-2007, followed by increase until 2009, with fall in recent years. The drop in maternal mortality ratio may be due to remarkable progress in reproductive health in last 20 years in Nepal. Factors such as ANC utilization increase in family planning use, improvement in health services and increase in institutional deliveries had contributed to decrease in maternal mortality in recent years [4,5]. Data from the studies, annual reports of DoHS and NDHS surveys delineate major improvements in several of these areas that may have attributed to this decline in maternal mortality [4,5,13,14]. In recent years, so many interventions were undertaken inhospitals, health centers, and the community via themedia.

Utilization of ANC services antenatal care improved in Nepal in last 20 years. The proportion of women with 4 ANC visits is more than 50% in last three years. While the proportion of women receiving ANC services remains lower in Mountain region (< 40%) [14]. Increased utilization of antenatal care might have contributed to improved diagnosis and management of problems during pregnancy, such as anemia, diabetes and pre-eclampsia. Antenatalcare visits also represent an opportunity to provide effective preventive care, such as tetanus to xoidimmunization. Increased contact with mothers may have given health providers more opportunities to educate women about danger signs during pregnancy, delivery and the postpartum period, and the importance of seeking care. Increased contact with health providers may also have encouraged women to choose institutional deliveries and/or skilled attendants during labor and delivery. All of these factors may have been associated with a reduction in mortality risk.

Figure 5: Trends of Antenatal care in Nepal from 2001 to 2015
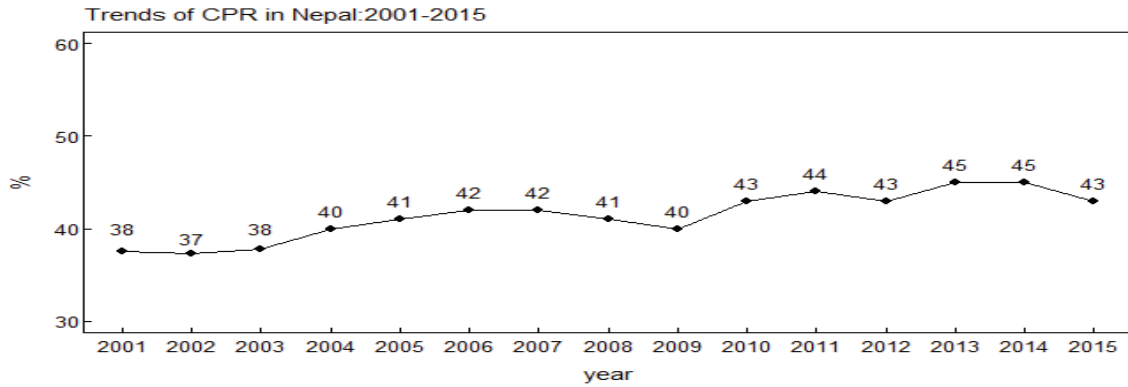
Consistent with other studies, increased Contraceptive Use may be attributed to drop on maternal mortality in recent years [4, 5]. For Nepal, there was link between drop in Contraceptive Use and rise in maternal mortality for the year 2008 to 2009 (Fig 7). Increased contraceptive use may have contributed to decreased maternal mortality by reducing the number of pregnancies among older women with high number of births and unwanted or mistimed pregnancies.

Figure 6: Trends of Contraceptive Prevalence Rate in Nepal from 2001 to 2015
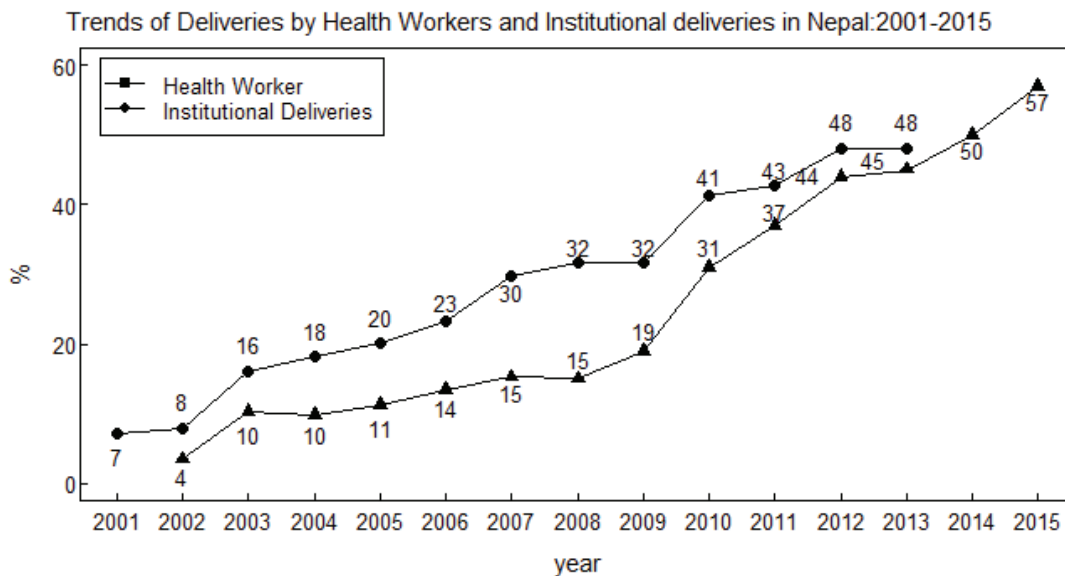
Increased institutional deliveries and improvement in health services are also related to decreased in maternal mortality and these results corroborate results of other similar studies [4,5]. DoHS annual reports indicated that the rate of delivery in hospital institutions and health workers in Nepal has continued to rise over the past 20 years, while home deliveries have fallen (Fig. 8).The increased rates of delivery in hospitals and a consequence of increased availability of services may also associated with reduce in maternal mortality. Institutional delivery as percentage of expected live births increased from 45 to 57 percent over the last three years, with notable seven percent increment from last fiscal year [14]. Moreover, the deliveries by health workers also show improvement in last 10 years. The increased rate of facility deliveries attended by trained professionals may have contributed to the observed reduction in the MMR by providing a cleaner environment; safer delivery practices; and earlier referral of cases where complications may have occurred. Moreover, this increase in quality of care provided by general practitioners, obstetricians and skill birth attendant may be the result of extensive training conducted by the MoHP. The existed variation in institutional deliveries in regions of Nepal; low institutional deliveries were observed in mountain region of Nepal. Moreover, home deliveries are prevalent in mountain region of Nepal.

The Government of Nepal (GoN) has made considerable headway in the development of national policies and programmes to promote safe motherhood, including Demand-side Financing Schemes (DSF). The AamaSurakshyaKaryakram was established in 2005 under the name Maternity Incentive Scheme (MIS) and was later renamed as the Safe Delivery Incentives Programme (SDIP). It provides incentives to women to deliver in health facilities in order to improve their health outcomes and those of their babies and found to be effective in reduction of maternal mortality in recent years [13,14].

Maternal mortality was distributed unevenly in Nepal; maternal mortality was found to be higher in mountain region. In Nepal, there existed significant disparities in reproductive, maternal, newborn, and child health outcomes and intervention coverage between the Mountains and other regions of Nepal. Delivery of essential health services to remote mountainous areas is challenging and difficult. In this region, inaccessibility, utilization of health services is affected by costs of health seeking, traditional attitudes and practices, poor status of women, lacked of health

knowledge, dissatisfaction with health service and quality, and low and inequitable care by community health workers that influence high mortality rate. Moreover, maternal mortality was also found in rural communities. Majority of women living in rural and remote settings of Nepal, supply side constraints and demand side barriers have still been perceived as key hindering factors that are preventing women from accessing maternal health care services [15].

Conclusion

Maternal mortality rates have fallen but this figure still remains high and above the target for MDG. The decline in the maternal mortality appears to be associated with the combination of factors: improved access to, and quality of maternal and reproductive health services, use of family planning, antenatal care utilization, skilled attendance at delivery and institutional deliveries. Various interventions at national and district levels, improvements in maternal health services and the investment in safe motherhood programs should be continue to contribute to this progress [11].

Pregnancy, child birth and uses of family planning means are subject to different beliefs and traditions across the country because Nepal is a highly fragmented cultural country individual belief and practices found varies. This shows that maternal deaths and ill-health cannot be reduced in the absence of a functioning of primary health care systems together with community involvement. Cause of maternal mortality needs to be viewed both bio-medical and social perspective. Bio-medical perspective concerns in medical diagnosis while social perspective views concern on social, cultural and economic factors which affects the maternal mortality through pregnancy and its completion that needs to be addressed simultaneously to reduce the pregnancy related death.

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Performance Analysis of eSTREAM Cipher Finalists in Symmetric Cryptography

Mr. Dil Bahadur Budhathoki, M. Phil / M.Sc CSIT

Lecturer, Welhams College, TU, Ktm.

Mr. Chhetra Bahadur Chhetri, M.Sc. CSIT

Lecturer, NCCS College, TU, Ktm.

ABSTRACT

Stream Cipher algorithms are most powerful tools in symmetric cryptography. These algorithms perform either bit wise or byte wise encryption in a simple way just by doing XOR operation between key and message. Stream cipher algorithms are about 5 to 10 times faster than AES, TDES (block cipher). In stream cipher, creating key stream by randomizing the bits is crucial. These algorithms are useful normally in GSM mobile communication, Hard disk encryption, Multimedia encryption and fast Software encryption etc. In this paper, those stream cipher finalists from eSTREAM project run by ECRYPT have been analyzed and implemented in Java Programming. Considering their other parameters constant, performance analysis has been carried out in this paper.

The empirical performance shows that Rabbit algorithm is found to be better if the message size is very small. When message size is increased, then performance of Rabbit decreases and performance of Salsa20/12 increases in a far better way as compared to other algorithms. HC-128 showed considerable performance in some cases of message size where as SOSEMANUK was found not to be good. Therefore, while inputting different and big size of message, performance of Salsa20/12 gets increased and it is found to be the best algorithm for the large size message in the targeted architecture computer.

Keywords: - Plaintext, Cipher Text, Stream Ciphers, eSTREAM, HC-128, Salsa20/12, Rabbit, SOSEMANUK, XOR operation etc.

Introduction to Cryptography

Cryptography is an art of protecting information by *encrypting* it into an unreadable format, called cipher text. Only those who possess a secret *key* can decipher (*decrypt*) the message into plaintext. Encrypted messages can sometimes be broken by cryptanalysis, also called *code breaking,* although modern cryptography

techniques are virtually unbreakable. Cryptography enables one to store sensitive information or transmit it across in secure networks so that it cannot be read by anyone except the intended recipient. While Cryptography is the science of securing data, cryptanalysis is the science of analyzing and breaking secure communication. Classical cryptanalysis involves an interesting combination of analytical reasoning, application of mathematical tools, pattern finding, determination, and luck etc. Cryptology embraces both cryptography and cryptanalysis. The modern cryptography can be divided into two main branches (Tilborg, 1988).

- ➢ Symmetric Cryptography, where the same key is used to encrypt a message and decrypt data.
- ➢ Asymmetric cryptography, where two different keys are used for encryption and decryption.

Symmetric Cryptography

Symmetric cryptography is a form of cryptosystem in which encryption and decryption are performed using the same key. It is also known as private key cryptosystem. Symmetric cryptosystem is the only type of encryption technique in use prior to the development of public key cryptosystem which can be defined as: Let

M denotes the set of all possible plaintext messages, C the set of all possible cipher text, K the set of all possible keys, k: M $\rightarrow$ C is the encryption function, and k: C $\rightarrow$ M, is decryption function, such that k(k(m)) = m for all m ε M and k ε K. In this cryptosystem, sender and receiver have to initially agree upon a secret key k ε K. After that, whenever sender wishes to send a message m ε M to receiver, sender sends the cipher text C = k (m) to receiver, from which receiver can recover m by applying the decryption function as m = k(C).

Stream Ciphers

Stream ciphers are an important class of encryption algorithms and are defined as the ciphers in which plain texts are encrypted by XORing between secret key and plain texts to obtain ciphers. They encrypt individual characters (usually binary digits) of a plaintext message one at a time. Stream ciphers are generally faster than block ciphers in software as well as hardware applications. They are more appropriate in some telecommunication applications, where buffering is limited or characters must be individually processed as they are received. If it is observed at the types of cryptographic algorithms that exist in a little bit more detail, it can be seen that the symmetric ciphers can be divided into

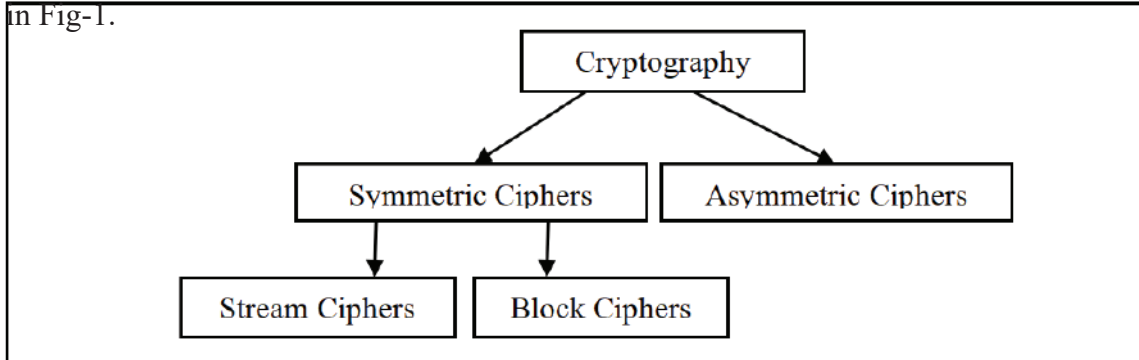stream ciphers and block ciphers, as shown in Fig-1.

Figure-1: Showing Cryptographic Branches

Encryption and Decryption process in Stream Ciphers

Example: Alice wants to encrypt the letter A, where the letter is given in ASCII code. The ASCII value for A is $65_{10} = 1000001_2$. Let's furthermore assume that the first key stream bits are $(s0, \ldots , s6) = 0101100$.

Sender: - Alice, Receiver: - Bob, Attacker: - Darth

$$x0, \ldots , x6 = 1000001 = A$$

$$\oplus$$

$$s0, \ldots , s6 = 0101100$$

$$y0, \ldots ,y6 = 1101101 = m$$

$$.$$

$$.----m-=-1-10-1-10-1--\rightarrow$$

$$y0, \ldots ,y6 = 1101101$$

$$\oplus$$

$$s0, \ldots , s6 = 0101100$$

$$x0, \ldots ,x6 = 1000001 = A$$

According to the above mentioned example, bitwise XORing between message and key is carried out for encryption as well as decryption.

eSTREAM Project

This project is dedicated to promoting the design of new stream ciphers. The project was completed with the publication of a portfolio of new stream ciphers. Four of the proposals in the final portfolio were suited as fast encryption in software which is called Profile-1 (Cid & Roshaw, 2010).

The portfolio was revised in September 2008, after the announcement of cryptanalytic results against one of the algorithms, and since then has been revisited periodically as the algorithms have matured. On 2012, eSTREAM portfolio had seven algorithms altogether. Among them, four algorithms were shortlisted as the finalists for software applications and

remaining were for hardware applications. They are HC-128, Rabbit, Salsa20/12 and SOSEMANUK for software applications (Cid & Roshaw, 2010).

Stream cipher HC-128 is the simplified version of HC-256 for 128-bit security (Bernstein, n.d.). HC-128 is a simple, secure, software-efficient cipher and it is freely-available. It consists two secret tables, each one with 512 32-bit elements. At each step, we update one element of a table with non-linear feedback function. All the elements of the two tables get updated every 1024 steps.

At each step, one 32-bit output is generated from the non-linear output filtering function. HC-128 is suitable for the modern superscalar microprocessors. The dependency between operations in HC-128 is very small: three consecutive steps can be computed in parallel. At each step, the feedback and output functions can be computed in parallel. The high degree of parallelism allows HC-128 to run efficiently on the modern processor (Pertrank & et al, 2000).

Rabbit is a synchronous stream cipher introduced in Fast Software Encryption in 2003. It is one of the most potent candidates of the eSTREAM project. The designers of the cipher targeted to use it in both software and hardware environments. The design is very strong as the designers provided the security analysis considering several possible attacks viz. algebraic, differential, guess-and-determine, and statistical attacks. The Rabbit Algorithm takes 128-bit key and if necessary 64-bit IV as input (Mukherjee, n.d.).

In each iteration, it generates 128-bit output. The output is pseudo-random in the natural sense that they cannot be distinguished from random strings of 128-bit with non negligible probability. The core of this cipher consists of 513 internal state bits. Obviously, the output generated in each iteration is some combination of these state-bits. The 513 bits are divided into eight 32-bit state variable, eight 32-bit counter and one counter carry bit. The state functions which update these state variables are non-linear and thus build the basic of security provided by this cipher (Mukherjee, n.d.).

The design of rabbit enables faster implementation than common ciphers. Mostly bitwise operations like concatenation, bitwise XOR, shifting are involved which explains its faster performances. A few costly operations like squaring are necessary to enhance the amount of non-linearity. A key of size 128-bit can be used for encrypting up to 2^{64}

blocks of plain-text.

Salsa20/12 is a stream cipher submitted to eSTREAM by Daniel Bernstein. It is built on a pseudorandom function based on 32-bit addition, bitwise addition (XOR) and rotation operations, which maps a 256-bit key, a 64-bit nonce, and a 64-bit stream position to a 512-bit output (a version with a 128-bit key also exists). This gives Salsa20 the unusual advantage that the user can efficiently seek to any position in the output stream (Paar & Pelzl, 2010).

It is not patented, and Bernstein has written several public domain implementations optimized for common architectures. The version selected in the eSTREAM profile has 12 rounds. So, it is called Salsa 20/12. Here it is focused on the stream cipher Salsa20 in general. There are a lot of active researches going on around the crypto-community to break this very popular eSTREAM cipher (Paar & Pelzl, 2010).

SOSEMANUK is another new synchronous software-oriented stream cipher selected in eSTREAM project. It uses both basic design principles from the stream cipher SNOW 2.0 (Ekdahl & Johansson, n.d.) and transformations derived from the block cipher SERPENT (Biham & et al, n.d.). It is well-known

that snow snakes do not exist since snakes either hibernate or move to warmer climes during the winter. Instead Sosemanuk is a popular sport played by the Eastern Canadian tribes. It consists in throwing a wooden stick along a snow bank as far as possible. Its name means snowsnake in the Cree language, since the stick looks like a snake in the snow (Burns & Baum, n.d.).

The Sosemanuk stream cipher is a new synchronous stream cipher dedicated to software applications. Its key length is variable between 128 and 256 bits. Any key length is claimed to achieve 128-bit security. It is inspired by the design of SNOW 2.0 which is very elegant and achieves a very high throughput.

Sosemanuk also requires a reduced amount of static data; this lower data cache pressure yields better performance on several architectures. Another strength of Sosemanuk is that its key setup procedure is based on a reduced version of the well-known block cipher SERPENT, improving classical initialization procedures both from an efficiency and a security point of view.

Objectives:

➢ To implement and analyze the performance of eSTREAM cipher finalists using different parameters like different size of messages.

➤ To calculate cycle/Byte performance.

➤ To find the better algorithm in terms of performance.

Limitation of the study:

This research work was performed only for calculation of speed in cycle /byte with different message sizes. Other parameters have been kept constant. It was because of unavailability of resources and some other technical issues.

Research Methodology

As this research work is related to the field of Science & Technology, quantitative research method has been purely used. For data collection, survey method has been applied in this research. Data were collected by both primary and secondary data collection methods. Various sample messages of different sizes were fed to the different modules.

Sample Test Cases

For testing data input, the different size of text files were taken as input message. Size of 30 bytes file was taken as smallest size and 60KB as big message. Constant keys as well as IV given in program, sample of input message and generated ciphers are as follows:

Key used for Encryption and Decryption

    I.   **HC -128**

       K = "AAAAAAAqweAAAAT"

    II.   **Rabbit**

       Byte Key[] ={

       (byte)0xa0, (byte)0x33, (byte)0xd6, (byte)0x78,

       (byte)0x6b, (byte)0x05, (byte)0x14,

       (byte)0xac, (byte)0xfc, (byte)0x3d, (byte)0x8e,

       (byte)0x2d, (byte)0x6a, (byte)0x2c, (byte)0x27, (byte)0x1d }

    III.   **Salsa20/12**

       K= "gdsfkhalfjjsfvvh"

    IV.   **SOSEMANUK**

byte key[]= {

(byte)0xA7, (byte)0xC0, (byte)0x83, (byte)0xFE, (byte)0xB7}

RESULT ANALYSIS

This section presents the result of the performance tests for various input sizes of each algorithm. A simple multiple histograms for each candidate algorithms are presented each for cycle per byte calculations.

The following table and corresponding charts show the overall performance in the different encryption algorithm, HC-128, Rabbit, Salsa20/12 and SOSEMANUK. Different sizes of data like 30 bytes, 1KB, 10KB and 60KB are taken by every candidate algorithms as below. Small size of message is considered to be 30 bytes or less than that and big size of data means 60KB or bigger than that size of message.

Message Size = 30 Bytes

Table-1: Performance of Candidate Algorithms for Small Message Size (30 Bytes) with Cycle/Byte.

Algorithms	1st Run	2nd Run	3rd Run	4th Run	5th Run	Average	Cycle/Byte
HC-128	105	250	253	603	367	315.6	26.62
Rabbit	100	187	213	500	301	260.2	21.94
Salsa20/12	593	859	570	783	645	690	58.19
SOSEMANUK	5670	2311	1254	1123	2109	2493.4	210.28

Figure-1: Performance of Candidate Algorithms for small Message Size (30 Bytes) shown in Bar Diagram.
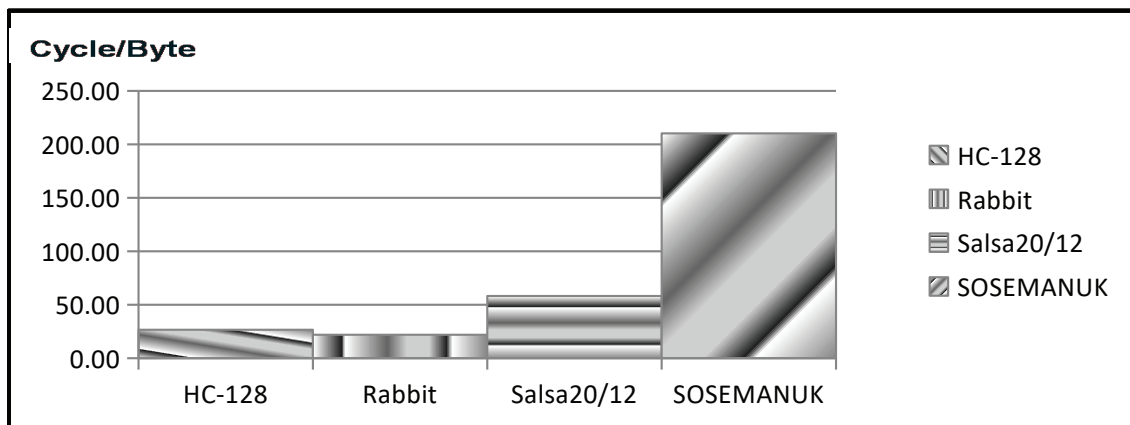
Message Size = 1KB

Table-2: Performance of all the Candidate Algorithms for Message Size (1KB) with Cycle/Byte.

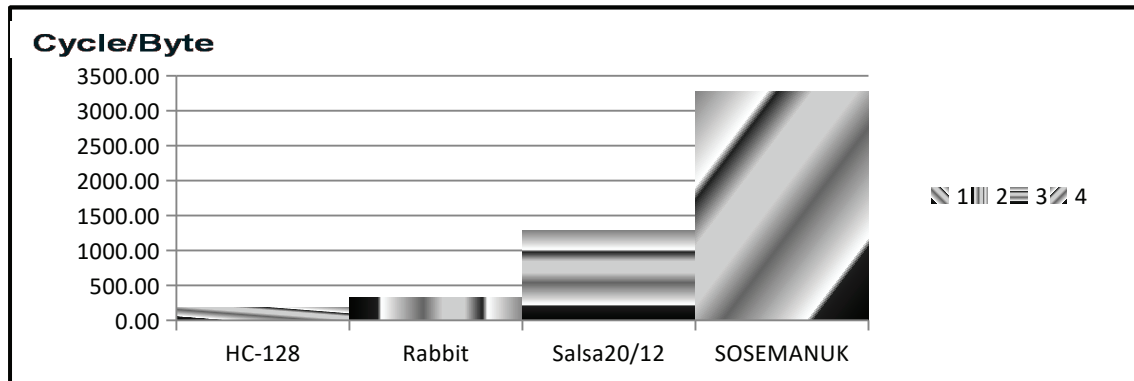| Algorithms	1st Run	2nd Run	3rd Run	4th Run	5th Run	Average	Cycle/Byte
HC-128	3366	3298	1009	1284	2347	2260.8	190.66
Rabbit	7899	4500	3392	1558	1807	3831.2	323.10
Salsa20/12	24865	24897	16621	4534	5417	15266.8	1287.50
SOSEMA-NUK	56745	56814	32435	25033	23456	38896.6	3280.28

Figure-2: Performance of Candidate Algorithms for Message Size (1KB) shown in Bar Diagram.

Message Size = 10KB

Table-3: Performance of all the Candidate Algorithms for Message Size (10KB) with Cycle/Byte.

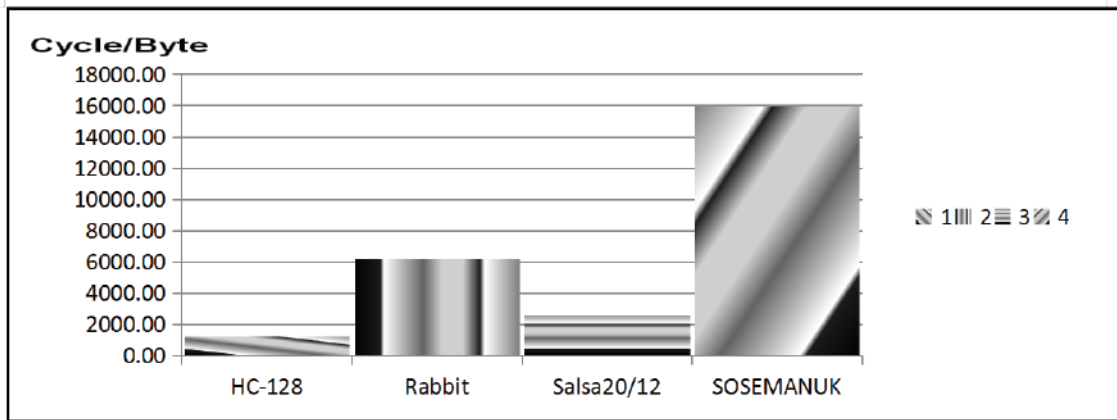| Algorithms	1st Run	2nd Run	3rd Run	4th Run	5th Run	Average	Cycle/Byte
HC-128	27226	9297	9048	17314	10082	14593.4	1230.71
Rabbit	59248	48334	74097	86689	96834	73040.4	6159.74
Salsa20/12	49138	30099	11927	29437	33605	30841.2	2600.94
SOSEMANUK	178104	98988	320633	136681	211990	189279.2	15962.55

Figure-3: Performance of Candidate Algorithms for Message Size (10KB) shown in Bar Diagram

Message Size = 60KB

Table-4: Performance of all the Candidate Algorithms for Message Size (60KB) with Cycle/Byte.

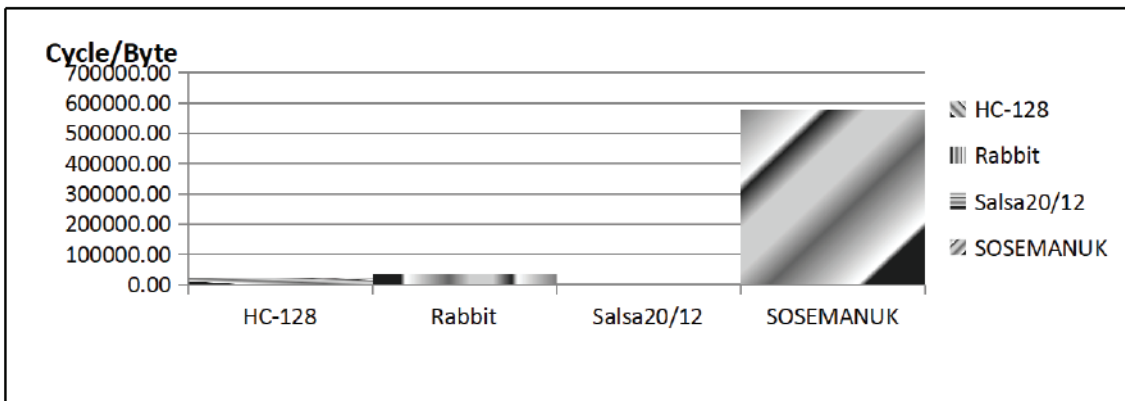| Algorithms	1st Run	2nd Run	3rd Run	4th Run	5th Run	Average	Cycle/Byte
HC-128	322307	230003	465700	313542	140082	294326.8	24821.56
Rabbit	337806	346900	386750	212321	936834	444122.2	37454.31
Salsa20/12	19226	120560	50385	29437	83605	60642.6	5114.19
SOSEMANUK	19387329	2477085	9963301	136681	2211990	6835277	576441.71

Figure-4: Performance of Candidate Algorithms for Message Size (60KB) shown in Bar Diagram

With the help of above mentioned measuring criteria in the targeted architecture, obtained result has been analyzed. Cycle/byte measuring unit is the best way to check the performance of any algorithms. After running the each algorithm with different sized message, it is observed that performance of Rabbit is better than other algorithms if the message size is very small.

With the increment of size of message, performance of Salsa20/12 is found to be better. Rabbit yields 17.58% to 89.28% better performance in small size of message. HC-128 yields 46.37% to 92.39% better performance in some other cases (bigger message size). But finally, the performance of Salsa20/12 is found to be the best algorithm amongst others for big size of message. It yields 38.32% to 93.67% better performance in all the huge message size of data. Therefore, Salsa20/12 eSTREAM cipher algorithm among all finalists is the best algorithm purposed in this paper.

CONCLUSION

In this paper, those eSTREAM cipher finalists were studied, discussed and implemented using most popular and highly accurate programming language Java. After implementation, different size messages were fed to encrypt to all the candidate algorithms and results were observed and analyzed. The result of empirical performance comparison shows that Salsa20/12 is the best one among other algorithms. Similarly, Rabbit cipher also seems to be better in small size of message. When message size gets increased, performance of HC-128 seems to be better in some cases. However, Salsa20/12 seems to be the best for big data size. Hence, Salsa20/12 algorithm shows the best performance among all other eSTREAM cipher finalists.

RECOMMANDATION

This research work was carried out considering that security as well as all the other parameters are constant. In this research, performance analysis among eSTREAM cipher finalists was calculated. Selecting Algorithm which can encrypt with high speed only doesn't matter but security equally matters. Security has been a great threat and challenge for entire field of cryptography. So, in future work, it can be the area of study to optimize and find better algorithms by improving security issues.

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Experience of private school teachers on handling unruly students: An Exploration and Analysis

Ms. Srijana Adhikary Koirala, M.Phil. scholar

Tribhuwan University

Abstract

Classroom is a mini world where students of different socio-cultural backgrounds come to study. Among these students, some are calm, disciplined and show a positive attitude towards the teachers whereas there are always fewer students in a class who are difficult to handle. They are unruly. The aim of this study was to find out teachers' lived experience of handling unruly students. Qualitative research design was applied for this study. Four experienced school teachers were purposively selected and interviewed in a natural setting. The study revealed that unruly students show irresponsible behaviour due to their academic performance is poor. This brings anger in parents. So they scold the teachers and misbehave with them. In addition to that, even school authority is found to be less supportive to teachers which fails to address the teachers' problems and suppresses their voices. Due to this, teachers get frustrated at their work place which has to be addressed by the school to raise their motivation. This research has found out that the school management team is the main agent which can create a teacher friendly working environment in the school to handle the unruly students.

Keywords

psychology, frustration, job satisfaction, experienced teachers, psychotherapist

Introduction

School is a miniature society where students can practice to become good citizens in the real world Collins, M. (1992). Students from different backgrounds on the basis of language, religion, caste, ethnicity, economics condition, cultural and family settings are found in a classroom. These factors have a direct influence on students' behaviour as well as their learning process. As a result, different types and levels of students are found in the classroom. Some are able to grasp the content easily, some are average and some are below the level of the class standard. Among these students, some students are calm, well disciplined and show a positive attitude towards their studies, whereas there are always fewer

students in a class who are problematic and difficult to handle. They are unruly as well. Every teacher holds various experiences about teaching students having different characteristics. Teaching is a challenging job. Teachers need to understand the psychology of the students and work accordingly. The most challenging thing is to handle unruly students. These students create problems in the class and disturb others. They hardly listen to their teachers, as a result the classroom becomes chaotic. Behind the disruptive behaviour of these students, there may be several reasons which are necessary to explore. Otherwise, teaching learning activity is disturbed and teachers face difficulties and unruly behaviour of the students.

Recently private school teachers are in the condition of having dissatisfaction in their job and they are demanding to implement a social security fund. I am also a private school teacher. I have faced lots of challenges in my profession. Teaching problematic students is a great challenge in itself. Besides, the school management team and parents' pressure has to be faced by the teacher. Private schools exclude most of the teachers while making decisions. The schools' owners, operating a hierarchy of power similar to monarchs, exercised their authoritarian power over the non-owner staff, including teachers working

in different levels of the school, to extract their time and labour. As a result teachers quit their job in panic situation. The current study states that teachers are controlled by the school owners with their monopoly type of power. Many studies have been carried out to find dissatisfaction levels of teachers. However, those studies fail to identify the lived experiences of teachers in dealing with unruly students and other hidden causes related with this. Thus study aims to fulfil this gap. I carried out this study with my participants to explore their teaching experiences.

Literature Review

Almost every school is now setting new goals to compete in other schools and the teachers are being involved with the ultimate goal. This may cause the school teachers to face plenty of stress and therefore affect their satisfaction and even their physical or mental health (Kayastha et al. 2012). The power concentration in individual or group of owners gives rise to a number of management related issues such as unequal distribution of authority and responsibility, role ambiguity, negative motivation and conflict of interest. The top management should focus on place of living, recognition, team support, make available of needed resources on time, work responsibilities, increase in pay and bonuses, reduce working hours and

periods to satisfy their teachers (Nepal and Dhulikhel 2016). Efforts made to improve workload, student behavior, and employment conditions may lead to reduce stress among teachers and thus lowers levels of depression and anxiety (Ferguson, Frost et al. 2012). These empirical studies show that low satisfaction levels of teachers directly or indirectly affect the mental and physical health of school teachers. Teacher friendly environment and strategies can boost the interest level and their confidence.

According to Woolfolk (1995), classroom management includes the methods that are employed in order to ensure a positive and effective learning atmosphere. One of the significant indicators of the success or failure of classroom management is the behaviors of the students in the classroom. If students behave in accordance with their expected roles in the classroom, then it means there is not any management problem in that class (Erden, 2008). Taylor, Leitman and Barnett (1992) spoke about the frustration of teachers in their daily work with students, parents, and administrators. As a result many teachers leave the profession two years after they start it.

In Nepal, teaching in private schools is a significant job in which teachers are paid the salary by self-financed schools. Private school teachers o not enjoy the government budget. Private schools have to arrange funds by themselves to open and run the school. Private schools were started from the 1980s and increased after the 1990s (Poudyal C. S., 2017). There is discrimination between private schools' teachers and government schools' teachers although the constitution (Nepal's constitution, 2015) prevents discrimination to any grounds. The education act also forms education regulations to make rules and implement them with different strategies However, appropriate methods help in creating a positive and effective learning atmosphere; success and failure of classroom management depends on students' behavior and if classroom management is failed, teachers become frustrated and leave the profession.

Until and unless working people can't enjoy the professional rights, a country cannot be a democratic country. Exploitation of teachers' skills, knowledge, feelings and emotions can show no progress in a society. Teachers are the main agent to run schools. They should be given special place in a society, otherwise it remains as a feudal society as it was in the ancient times where school authority remains as masters and teachers remain as slaves. Marx views power to be held by a particular group in society at the expense of the rest of the

society. To produce self-respect citizens from private schools, all the private school teachers must enjoy professional rights for the progress of the schools as well as themselves. Many studies have been carried out related to teachers and the teaching profession. However, the studies fail to identify causes of dissatisfaction. Therefore, a thorough understanding of difficulties faced by teachers should be addressed and sorted out by the related sectors.

Research Objectives

The present research has following objectives:

To explore unruly students behave in a classroom

To collect the experience of private school teachers while handling unruly students

To identify strategies in addressing and minimizing teachers' issues while handling unruly students.

Methodology

This is a qualitative study which used an interpretive research design. In depth interview is a research tool of the study. Cresswell (2007) suggests taking interviews in a natural setting, so I chose it. While trying to explore the study area, four teachers of three schools from the Kathmandu Valley were selected as the participants of the study. Two participants were Nepali teachers while the remaining two were male teachers who hold an experience of more than a decade of teaching Mathematics and Social Studies in a school. As all the participants have rich experience of teaching, they were chosen purposively. Another reason for their selection was the proximity of my residence to the schools where they work. In the very beginning, I visited the Principal of the participants; informed them about my purpose in visiting their school and took consent from them to involve their teacher(s) for the study. During the first two visits, I could only introduce myself with my participants as they were too hesitant to open up with me. After frequent visits, I was able to build up rapport with them. Once my participants and I felt connectivity with each other, then only I was able to ask questions to collect data for my study. The questions asked to the participants were unstructured and open-ended. The sequence of interviews continued till it reached saturation. I recorded all participants' responses on the mobile phone. The same day after taking the interview, in the evening, I transcribed the responses of each participant. I started coding their responses, then analyzed and compared the codes. Again similar codes were grouped together. In total I grouped all codes in four and generated themes.

Findings and Discussions

Students' Irresponsible Behavior

In a classroom there are many unruly students. Their behavior is difficult for teachers to handle. These students are problematic and they do not show interest in studies. They try to disturb the class. In this context, one female participant's experience was, "These students hardly bring all their subjects' textbooks or exercise books. They are the ones who don't do assignments also. Every day they make excuses for incomplete work." When students do not complete assignments and make multiple excuses for that, it is a burden for teachers. Now they need to do frequent follow-ups to complete assignments. Another male participant stated, "On one hand these unruly students do side talks and disturb others, on the other hand they even don't complete assignments. They make similar excuses all the time. They are not interested in studies and fail exams but the Principal scolds us for this also." Students' irresponsible behavior creates difficult situations for teachers.

Unruly students have difficulty in focusing their studies. They lack concentration. They divert their mind elsewhere at the time of lecture. One participant said, "When I start teaching, there are some boys at the last bench who hardly listen to me. Either they look outside the classroom, keep on staring at something, scratch desk or bench, keep on pinching the friends next to them, murmur…..ugh! Most of the time they secure poor marks." Students' lack of concentration directly affects the marks resulting in failure in the exam.

Problematic students think themselves as superior to other students in the class. They do not take the advice either from the teachers or from the Principal. Another participant informed, "We sometimes scold or even advise them to behave well. In front of us they say that they will be good, and will listen to all teachers. But when they step away from us, they forget everything. They never listen to us. They think they are superior to everyone." The feeling of superiority hinders these students' success. Until they welcome others' suggestions and develop the habit of listening to others' voices, they cannot progress in their studies.

Parents' Misbehaviour

Unruly students score poor grades in the exam and as a result, parents burst their rage upon the teachers. Parents think teachers are responsible for the failure of their wards. In every meeting with teachers the parents say, one of the participants revealed, "We are paying a huge amount

of money for school every month. The whole day you (teachers) spend time with our kids, still the behavior has not been improved. They score poor marks. How do you look after our children? They neither do assignments nor do they pass the exam. This is only your (teachers') fault. Children are restless in nature and don't want to study. You (teachers) have to help our kids arise interest in studies." Many parents think teachers are the only ones who are responsible for their children's education. They think paying fees to the school is their only responsibility.

Teachers are frequently compelled to inform parents about the problematic behavior of their children. However, parents do not find flaws in them. On the contrary, they point fingers at teachers. A Mathematics teacher stated, "Parents show their index finger at us (teachers) and tell us that their children should score high marks and pass the next exam." The fallacy that parents do is that they do not give time for their children's studies but keep high expectations from the school and teachers. If parents get involved in their children's education and expect high levels of academic achievement and commitment to schooling, the child is more likely to adopt positive attitudes (Hoover-Dempsey et al., 2005).

Teachers have bitter experiences of getting scolded and shouted from the parents. Parents know that their children do not give sufficient time for their studies and they themselves have not invested time to follow-up their studies. Still, they do not blame themselves. A Nepali teacher expressed, "Problematic students' parents hit on the desk and table and show their anger when they meet us. They shout at us. We feel so miserable. We want to reply back to them but we are compelled to seal our mouths. We have fear of losing our job." The quotation clarifies that even though teachers want to reply back to parents' misbehave and harsh words, they are unable to do so. They feel pathetic.

Lack of support from school

Dealing with unruly students on a daily basis is a serious challenge among the teachers of private schools. Most of the schools fail to train teachers about that. One of the participants added, "School hasn't trained me how to deal with problematic students. Since the past eleven years I have not received it. Yet the principal blames me that I could not control them." Every professional needs to update oneself to reach the level of job's demand. The findings show that with minimum training or even without training, teachers are compelled to move on in their profession.

The training programs are apparently successful in eliciting teacher enthusiasm and support and are consistent with the teachers' role expectations or preferences. These systems do provide teachers and administrators with strategies for dealing with major threats to school and classroom order and they provide rational, systematic means of communication with students about expectations and consequences (Emmer 1986).

Teachers are the assets of an educational organization. They should be valued for their contribution. However, the responses of the participants revealed that a teacher is considered as an object by the organization they work for. They are shown minimal respect and are hardly given any values. The highest authority, the Principal, points fingers at teachers for any unmanageable and unwanted situation. One of the participants added, "We are seen as if we are the only creators of problems. If there is any issue with the students, parents, account section, canteen or anywhere, teachers are responsible, our Principal thinks so. Principal scolds us in front of the students. Don't we have self-respect?" Another participant also held a similar view. He revealed, "Teaching is such a profession which doesn't have any support to teachers. There are only a few schools which support teachers. People are in this profession not due to interest but simply to solve hand-to-mouth problems." The response of the participants shows the frustration level of teachers due to lack of school support. The greatest need for teachers with six to ten years of experience is to be respected as professionals. Teachers who feel encouraged and comfortable with the Principal's support will stay with him/her in a positive climate of learning (Richards 2007).

Teachers as well as students have work pressure due to which they remain at tense. Anxiety and frustration make them feel tired. All the participants had the similar view that the school should hire a counselor to help both the students and teachers. One respondent said, "Every school should have at least one psychotherapist. We have put forward our demand about hiring a counselor but the school authority doesn't take it seriously. A counselor, only, can handle problematic students, can find out the real causes of problems." Another participant added, "We, teachers, also need counselor's help. Who is going to solve our problems? If a counselor comes, the school has to pay a salary for him/her. School only wants to economize finances and tries to escape from it. The above comments show that private schools lag behind in facilitating students and teachers for their improved mental health. Mental health is

an important occupational health issue in school teachers as work stress is a major risk factor for anxiety and depression. Psychological ill-health contributes to widespread and serious chronic health problems, including burnout, in teachers (Borrelli, Benevene et al. 2014).

Frustration at Work

Teaching profession is less appealing to most of the teachers because of parents' misbehaviour and lack of school support. They feel that the teaching profession, for them, is like a piece of bone stuck on a throat. Many teachers are engaged in teaching because there are no better job opportunites. According to ILO in 2020, the unemployment rate in Nepal was around 4.44 percent. In such a situation, teachers cannot take the risk of losing their job. One of the respondents stated, "We teach under parents' pressure and the Principal. Our life is full of fear. (Uff!) I don't want to lose my job. But it is like a bone stuck on my throat…can't spit as well as can't swallow. I want to discontinue this profession. But….." The above sentences shed light on the factual status of teachers. The respondent's ideas reveal high frustration of teachers at work place.

Even though there are less job opportunities in Nepal, many teachers want to quit teaching and seek alternatives. However, it is not easy. While dealing with unruly students, teachers are scolded by their parents and the school management and are seen as if they are responsible for everything. One of the respondents mentioned that she wanted to start a business. She expressed, "Sometimes I want to quit this job immediately and start a business. But it is not so easy." Another respondent also has similar thoughts. He mentioned, "I don't want to recommend anyone for starting this profession. Even my enemies should not do this job." The quotations show the frustration level of the teachers. Anxiety level is high among teachers and have mental pressure. Mondal, J., Shrestha, S., & Bhaila, A. (2011) stated that the school teachers were partly satisfied and experiencing mild to moderate stress from their job overall.

Teachers not only feel mental pressure but also physical pain associated with the teaching profession. They get excessively tired when they reach home after teaching. One participant replied, "After teaching for the whole day, dealing with unruly students and running after them for the entire day, I become so tired. I immediately want to sit down after reaching home. Recently back pain has started. I am worried." Teachers tirelessly

Welhams Academic Journal

work for the whole day. They could hardly rest during their work time. Due to this they face serious physical problems. Here is a response from another participant, "Our job demands shouting for the entire day. We speak a lot. (In a mocking way) Sometimes I think I have to transplant my throat (laughs loudly). Will you donate your (my) throat for me (again laughs loudly)?"

Though it seems there is humor in the response, not only physical but also mental pain is hidden in the response. Dangal, M., &Maharjan, R. (2021) stated that different health problems like back pain, neck pain, eye pain, headache, sleeplessness and anxiety are found among teachers.

Conclusions

Teaching is one of the most beautiful professions in the world which not only brings teachers and students physically together but also establishes a heart to heart connection between them. However, the findings of the study showed that many teachers do not want to adopt this profession. The nature of this job itself is tiring. There is always parents' pressure on teachers. Parents hardly follow up their children with the studies but demand for the improved learning behavior and high scores of their wards with the teachers. On the other hand, school management also pressurizes teachers and it provides minimal support in providing counseling, training and listening to their issues. As a result teachers get frustrated at their workplace and intend to quit the job. So, the teaching profession is at a risk.

Colquitt et al. (2011) states that teacher's job satisfaction positively affects the job commitment. Teachers' frustration needs to be taken care of to reduce their stress and dissatisfaction. Teachers must enjoy professional human rights. For this, the government should supervise private schools and make such policies which can address and ensure the issues of private school teachers. Job security of private school teachers must be included in the Education Act and Rules. Moreover, the Constitution of Nepal should guarantee teachers' rights and provide job security for the teaching profession of both community and private schools.

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