INSTITUTE OF MEDICINE

2029 B.S.

JONEN

Journal of Nursing Education of Nepal

A peer reviewed journal of Maharajgunj Nursing Campus

Tribhuvan University

Institute of Medicine

Maharajgunj Nursing Campus

Maharajgunj, Kathmandu, Nepal

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Editorial Board

Message from Campus Chief

It is a matter of great satisfaction and pleasure to present this 12th volume, *Journal of Nursing Education of Nepal (JONEN)* from Maharajgunj Nursing Campus, TU IOM among with you. This is the peer reviewed annual journal covering articles related to nursing profession of different areas of specialties like maternal and child health, adult health nursing, mental health nursing, community health nursing, etc.

The journal aims to provide opportunities to enhance the practice of writing scientific papers from the health professionals and exhibits new knowledge among the readers. I hope the campus will continuously move forward in publishing this kind of regular journal in upcoming years.

I would like to acknowledge all reviewers and express my heartily congratulation to the entire editorial team for their tireless efforts in bringing this volume in post COVID 19 new normal life in Nepal.

Prof. Sulochana Shrestha
Campus Chief
Maharajgunj Nursing Campus,
Institute of Medicine
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COVID 19 in Nepal and Blended Method of Learning in Higher Education Institutions

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BACKGROUND

The world is facing unprecedented challenges in the face of a global Coronavirus pandemic from 2019 (COVID-19) to date, killed thousands of people worldwide (World Health Organization 2020). Now, with the emergence of new, highly infectious variants of the virus in some developed countries need immediate action to shore them up and threat for the coming days.

This health crisis which was in March 2020 has impacted not only frontline staff and clinical leaders but all systems and communities. During the time, Nepal government imposed lockdown led to a total closure of teaching learning and research activities in higher education institutions, and has disrupted the nursing educational institutions also faced with unique challenges related to student's learning and clinical experiences in the hospitals and sit in final examinations. The students were removed from clinical practicums concerned with safety who were directly involved in patient care potential for transmission of deadly virus.

In such a situation the nursing academic programs were conducted via virtual link, examination were postponed and under immense pressure to switch to online virtual classes to maintain the pre-scheduled academic calendars. Online mode of education is undoubtedly an attractive method of coaching the students. The teachers participation in different webinar, workshops and faculty development enhanced the learning experiences during covid 19 towards the blended learning with dimensions of flexibility in learning via online and study management. But it has its own challenges to *conceptualize, develop, connect and deliver the courses* in the classes or at home.

The University Grants Commission, Nepal (UGC) has provided the guidelines for facilitating the alternative mode of learning for effective implementation of virtual classes. UGC has also supported the institutions which has been utilized for ***up gradation of Internet capacity, official email accounts for students and teachers, training to the teachers and students on how to run and enroll in online classes and on line examinations of those programme where the student's number were few.*** Besides the UGC has joined hand with Nepal telecom for the **"Happy learning pack"** for the university and institution's students for online education and video conference to subscribe the data pack with some registration requirements of the students.

Blended Learning (BL) an alternative solution: The above educational activities carried out by the institutions were suitable pedagogies of teaching-learning that will prove to be sustainable with the global health crises. Blended learning is one of the models proposed by various educationalists and research scholars that appears to be a viable and best fit solution for few months' post-pandemic and upcoming days.

Blended learning (BL) is an integration of face-to-face and online instruction which was widely being adopted across educational institutions in many counties. BL reduces the physical attendance in favor of video conferencing so as to create smaller groups that allow for appropriate social distancing. BL is considered as a viable model for the future of education, where the online component can be delivered through both synchronous modes and asynchronous modes, the people learn in different locations at different times. It requires the physical presence of both teacher and student with some elements of student control over time, place, path, or

pace. Blended learning is also used in professional development and training settings.

Blending can also happen at three levels – at an *institutional level*, at a *programme level* and at a *course level*. Whereas those practical and skills components can only be taught face-to-face, while others can be delivered either in blended or completely online mode. Hence the face to face practical training were able to learn only when the students and teachers have their own personal protective equipment (PPE) from different sources

Constraints of BL for many students and teachers for learning was a challenge, especially for those living **in *remote areas with little or no connectivity of internet*, *lack of access to online educational assessment equipment* and the *unwillingness of teachers to move from traditional classroom teaching method* to online environments by the means of *zooming, online assignments, workshops etc.***

To conclude, it is quite uncertain that how long the Covid-19 condition will continue and from where the new variant virus appears while we are focused on vaccination drive against Covid-19 with the Oxford-AstraZeneca's Covishield vaccine, manufactured by the Serum Institute of India with efficacy of 63.09 percent. The new variant virus is more contagious and lethal with risk of hospitalization and death. Hence, regular testing, contact tracing and whole-genome sequencing are basic, said the experts. The preventive measures should not be given up using mask and hand hygiene. It has been realized that we all need for developing a more effective alternative learning system in this new to normal life and for future. UGC has been suggested that the concept of a common integrated data center and its implementation in coordination and collaboration of all the higher education institutions. However, will require a large amount of investment.

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Original Article

Awareness on Diabetes Complications among Clients at a University Hospital, Kathmandu

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ABSTRACT

Introduction: Diabetes mellitus appears to be a global major non-communicable disease threatening both developed and developing countries including Nepal. The study aimed to assess an awareness regarding complications of diabetes mellitus among respondents visiting the diabetes clinic at a University Hospital Kathmandu Nepal.

Methods: A descriptive study design was carried out among 100 respondents attending medical out-patients department of a university hospital, Nepal. Non-probability purposive sampling technique was used to select the sample. Structured interview questionnaire was used to obtain information such as socio-demographic, disease related and awareness on complications of diabetes. Descriptive statistics was used for data analysis.

Results: The result showed that diabetes mellitus is common in female (60) and above 60 years (46) where 33% had positive family history having diabetes. Majorities (84%)of them believed that diabetes had complications where 54% respondents were aware about hyperglycaemia followed by hypoglycaemia (33%), whereas only 24% and 21%of respondents were aware on limbs and heart problems caused by diabetes respectively. Regarding the preventive measure of diabetes complications, only 45%, 43%, 7%, 5% and 3% of respondents were aware on need of diet management, regular exercise, regular check-up, self-monitoring of blood glucose and self-care of foot after having diabetes.

Conclusion: The findings concluded that diabetes clients have knowledge about the diabetes but they lack in-depth awareness on the various complications of diabetes and their preventive measures. Further expansion of diabetes education and awareness programs can be improved self-regulatory awareness of diabetes complications which may reduce the morbidity and premature death caused by diabetes mellitus.

Keywords: Awareness, Clients, Diabetes complications, Nepal

INTRODUCTION

Diabetes Mellitus (DM) is among the most prevalent and morbid chronic disease, affecting the millions of people worldwide. Globally, it is estimated that around 422 million people worldwide have DM and this figure is projected to increase double by the year 2030 (Ingelfinger & Jarcho, 2017; Roglic, 2016). Globally, the incidence of DM appears to be an increasing trend with worse prognosis in developing countries particularly in South East Asia. However, more than 75% adult with DM are living in low and middle income countries (LMICs)in addition to more than 80% of diabetic deaths are also reported in LMICs (World Health Organization [WHO], 2015).

Nepal belongs to low income country and located in South East Asia. The DM is most prevalent disease among non-communicable disease and a rapidly increasing public health issue (Gyawali et al; 2018). It was estimated that Type 2 DM is the 10th leading cause of mortality in Nepal. Similarly it was evident that greater prevalence of Type 2 DM was found in urban (8.1%) than rural (1%) areas respectively (Gyawali et al., 2015; Shrestha et al., 2019). It was

estimated around 9.1 percent Nepali people are living with diabetes (Gyawali et al; 2015).

Diabetes mellitus is a heterogeneous metabolic disorder characterized by the presence of hyperglycaemia due to impairment of insulin secretion, defective insulin action or both (Punthakee, Goldenberg, & Katz, 2018).Eventually, chronic hyperglycaemia leads to development of disabling and life threatening health complications (WHO, 2015).Individual diagnosed with DM is associated with an increased risk of getting a number of life threatening complications compared to the general population such as loss of vision, kidney failure, heart attacks, strokes, leg amputations and heart failure (Obirikoran et al., 2016; Punthakee et al., 2018). Such complications may increase the rate of morbidity and mortality (Obirikoran et al., 2016) as well as can affect the quality of life (Hayes et al., 2016) of the people living with DM.

Adequate knowledge and awareness of diabetes is a key component of diabetic management and self-care. A number of studies have shown that increasing patient knowledge regarding disease and its complications have significant benefits with regard to patient compliance to treatment and decreasing complications associated with disease (Obirikoran et al., 2016). It also had significant association between awareness level and participation in diabetes educational and education level of the respondents (Paneru & Adhikari, 2018). Similarly, diabetic educative programs like using mass media and involving national curriculum of education can improve self-regulatory awareness of diabetic complications which may reduce the morbidity and premature death of diabetic clients (Obirikoran et al., 2016).Hence, the study was conducted to assess the awareness of DM complications among respondents having DM visiting in a University hospital Kathmandu Nepal.

METHODS

A hospital based descriptive study was conducted to assess the awareness regarding complications of diabetes mellitus. The study was done in June 2014 at medical OPD of a University hospital Kathmandu Nepal. All the relevant ethical principles were followed and administrative permission was obtained from hospital authority before conducting the study. Verbal and written informed consent from each client was obtained. Anonymity and confidentiality were maintained. Data were collected using structured questionnaire and pre-test was done among 10 clients. Collected data were entered and analysed using descriptive statistics with the help of Statistical Package of Social Science (SPSS) version 17.

RESULTS

The results of the study were presented into three parts: socio-demographic characteristic; disease related information; and awareness regarding DM complications among the respondents.

Table 1: Socio-demographic Characteristics of the Respondents   n=100

Variables	Number	Percentage
Gender		
Male	40	40.0
Female	60	60.0
Age group		
Up to 30 years	5	5.0
31-40 years	19	19.0
41-50 years	15	15.0
51-60 years	15	15.0
Above 60 year	46	46.0
Religion		
Hindu	83	83.0
Buddhist	12	12.0
Muslim	5	5.0
Education status		
Illiterate	22	22.0
Literate	78	78.0
Read and write only	36	36.0
Primary level	21	21.0
Secondary level	9	9.0
Higher Secondary level	8	8.0
University level	4	4.0
Occupational status		
Farmer	8	8.0
Business	10	10.0
Service	10	10.0
Home-maker	57	57.0
Others	9	9.0
Types of Family		
Living in a single family	30	30.0
Living in a joint family	70	70.0

Table 1 shows that of 100 respondents, more than half (60%) were female, 46% belonged to 60 and above age groups and majority (83%) were Hindu

by religion. Regarding the educational status, majority (78%) were literate but only 4% obtained University level education whereas 22% were illiterate. Similarly, majority (57%) of the respondent were home maker and most of them (70%) were living in joint family.

Table 2: Disease Related Information of the Respondents　　　　　　　　　　**n=100**

Variables	Number	Percentage
Duration of illness		
Less than one year	43	43.0
1-5 years	38	38.0
6-10 years	8	08.0
above 10 years	11	11.0
Family history of DM		
Diabetes to parents	16	16.0
Diabetes to grand-parent	2	02.0
Diabetes to siblings	15	15.0
General information of DM		
Diabetes is a curable disease	19	19.0
Diabetes is not a curable disease	81	81.0
Diabetes respondents need lifetime health supervision	93	93.0
Sources of information about DM and its complications		
Health professional	63	63.0
Friends/Family	20	20.0
Others	17	17.0

The above table 2 illustrates that majority (43%) of the respondents had less than one year duration of disease and only 33% had family history of DM. Regarding the general information about the illness, most of them (81%) said that the disease is not curable and almost all respondents (93%) said that they need lifetime health supervision from health care professional. Most of the respondents (63%) got information about diabetes and its complications from health care professional.

Table 3: Awareness Regarding DM Complications among the Respondents　　　　　　**n=100**

Description	Number	Percentage
Diabetes associated with complications	84	84.0
Awareness on sign and symptoms: Hyperglycaemia	54	54.0
Awareness on sign and symptoms: Hypoglycaemia	33	33.3
Awareness on Organ affected by DM		
Kidney	25	25.0
Eyes	25	25.0
Lower limbs	24	24.0
Heart	21	21.0
Awareness to prevent DM complications		
Regular exercise	43	43.0
Diet management	45	45.0
Regular health check (eye, kidney, heart)	7	7.0
Self- blood glucose monitoring	5	5.0
Self-footcare	3	3.0
No ideas	75	75.0

Table 3 shows that only 84% were aware about DM associated with complications. Further more, more than half of them were aware about the sign and symptoms of hyperglycaemia whereas around one third of them were aware about the sign and symptoms of hypoglycaemia. Likewise, regarding the awareness on organs affected by DM, minority of the respondents i.e. 25%, 25%, 24% and 21% were aware about its complications related to kidney, eyes, lower limbs and heart respectively. Further, when asking about the awareness on measures to prevent DM complications, less than half of the respondents i.e. 43% and 45% mentioned about need of regular exercise and diet management, whereas very few respondents (7%) were aware about the regular check-up about kidney, eyes and heart. Similarly, only 5% were aware about the need of self-monitoring of blood glucose level as well as 3% said about the need of self-care of foot.

DISCUSSION

The study revealed that most of the respondents were above 60 years and above (median age 58.33). The majority of them were female (60%), Hindu (83%), literate (78%) and home-maker (57%) whereas 70% respondents belonged to joint family. The findings of the studies were congruent with the previous studies conducted in Nepal and in Ghana (Agrawal, 2015; Obirikorang et al., 2016; Paneru, & Adhikari, 2018). Likewise, in the study, only 84% were aware about the DM associated with complications. In contrast with this study, around 60%respondents did not know about DM complications in Ghana (Obirikorang et al., 2016).

Furthermore, around 54% respondents were aware about sign and symptoms of hyperglycaemia, and 33% aware about symptoms of hypoglycaemia. A similar study was conducted in Nepal (Paneru & Adhikari, 2018) where 90% respondents had knowledge of hyperglycaemia, and 66% had knowledge on hypoglycaemia. The result is not congruent between two studies. Regarding the DM associated complications, one fourth of respondents (25%) were aware on kidney disease and eyes problems, 24% were aware about complication in lower limbs and only 21% were aware heart disease respectively. The similar findings were found previous studies conducted in Nepal where 58%

were aware on kidney disease; 27% on eye problem; 3-13% on problem in lower limbs, 18% on CVA and 36% aware on heart disease as complications of DM (Agrawal, 2015; Gyawaliet al., 2018) and in Ghana where around 60% people having Type 2 DM did not have knowledge regarding complications of DM (Obirikorang et al., 2016).Similarly, a study conducted Nepal by Paneru and Adhikari (2018) also revealed similar findings where around half of the respondents (49%) had poor knowledge regarding DM complications.

Regarding the awareness on measure to prevent DM complications, most of the respondents (75%) did not have any ideas. However, 45% were aware on diet management; 43% aware on regular exercise and very few respondents 5% mentioned that need of regular check-up of eyes, kidney and heart, as well as and 7% were aware on self-monitoring of blood glucose level. The study findings is supported with previous studies conducted in Nepal where, 58% were aware on kidney problems caused by DM, 9% on foot care, 36% know about cardiac complications, 27% knew about eye problems, 36% 23% were on eye problems, whereas only 3% respondents did regular foot care (Agrawal, 2016). The findings is further supported by another study conducted in Ghana (Obirikorang et al., 2016) where heart disease 9.2%; kidney problems 5.4%; eyes problems 17.7%; diabetes foot 51.5%. This scenario indicated that the situation of Nepal about awareness regarding DM complications is inadequate and need more attention to increase this level of awareness among people having DM as well as general population.

CONCLUSION

The findings of the study showed that Type 2 DM is common in 60 years and onwards of age among female. Though most of the clients had history of DM more than one year, they had lack awareness about the major complications of DM as well as its preventive measures. Therefore, the present study suggests the need more attention to increase this level of awareness on complications and its preventive measures. Most of the clients belonged to joint family. So, both clients' and family members should be involved in health education program. Such type of awareness may be more effective to reduce the risk of morbidity and premature death caused by DM

complications resulted in improve the quality of life of people living with DM.

LIMITATION OF THE STUDY

The study was conducted at only one University hospital in Nepal among small sample size. Therefore, the findings of the study might not be generalized.

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Conflict of Interest: The author declared that there are no any potential conflicts of interest with respect to the research and publication of this article.

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Original Article

Internet Addiction among Nursing Students in Kathmandu

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ABSTRACT

Introduction: Life has become easier with the advent of internet; however excessive use of internet has created a lot of problems. Use of Internet for education, recreation and communication is increasing day by day. The nursing students use internet for their academic purposes. The availability of internet on the mobiles and the computer/laptops makes the student to access the internet very easily, thus there is a chance of internet addiction. The aim of the study was to find out the internet addiction among nursing students.

Methods: A descriptive cross-sectional research design with non probability purposive sampling technique was used. A total of 113 BSc nursing students studying at Maharajgunj Nursing Campus (MNC) of the Institute of Medicine during September and October 2018 were included. Self-administered structured questionnaire was used for data collection. Descriptive and inferential statistics was used for data analysis.

Results: Study findings revealed that the age of the respondents ranged from 18-26 years with mean age ± SD=20.84±1.57. Almost all (90.3%) were living in the hostel and almost all (97.3%) of respondents utilized internet for educational and non-educational purposes. Most (92.9%) of the respondents were average on-line user (mild addiction). Of the total, 6.2% were experiencing occasional or frequent problems (moderate addiction) while 0.9% was significant problems (severe addiction). There was significant association of internet addiction level with educational level (p=0.005), mother's education (p=0.002) and occupation (p=0.044).

Conclusion: Nursing students are utilizing the internet for educational and non educational activities which causes internet addiction. Counseling and education should be emphasized to increase awareness to prevent internet addiction among the nursing students.

Keywords: Academic, Internet Addiction, Nursing Students

INTRODUCTION

Life has become easier with the advent of internet; however excessive use of internet has created a lot of problems (Shakya & Sharma, 2015). A new psychological disorder has emerged: "Internet addiction", also inconsistently referred to as "excessive Internet use", "problematic Internet use", "Internet dependency", or "pathological Internet use" (Jongho et al, 2014).

The internet can have a negative impact on youths and young adults in particular if it is not utilized in a controlled and proper way (Nath et al, 2016). The nursing students (youths) use internet for their academic purposes. The availability of internet on the mobiles and the computer/laptops makes the student to access the internet very easily, thus there is a chance of internet addiction and this can affect their personal, family, academic, interpersonal and social life (Chacko et al 2015). Owing to web-based technologies and increases of internet access in Latin America and Asia, internet use has increased dramatically across the world reaching the number of global internet users more than 2.3 billion in 2011 (Jongho et al., 2014). Poli (2017) revealed approximately 40% of the world population is online.

A study conducted by Ni et al (2009), among 3,557 people aged 18-22 in China showed that 6.44 % were

addicted. Similar study conducted by Anderson (2001) among 1,302 people aged 18-22 in US showed that 8.1% were addicted. In Nepal, study was conducted by Pramanik et al; (2012) showed that 40% had mild, 41.53% moderate and 3.07% had severe addiction. Marahatta et al (2015) conducted a study among 236 health science students and revealed that 50.8% had mild, 40.7% moderate and 1.3% severe addiction. Bhandari et al; (2017) conducted a study among 984 students in 27 undergraduate campuses results revealed that internet addiction had 35.4%. In Nepal, there was dearth of information on internet addiction among nursing students. Therefore, this study was conducted to find out the internet addiction among the nursing students.

METHODS

A descriptive cross-sectional study was done to find out the internet addiction among BSc nursing students studying in Maharajgunj Nursing Campus (MNC) of the Institute of Medicine during Sept/ Oct 2018. All students (n=113) of 1st, 2nd year, 3rd year and 4th year were included in the study. Ethical approval was taken from the Institutional Review Committee of Institute of Medicine and informed written consent was taken from the students. Data was collected using self-administered structured questionnaire and internet addiction test scale developed by Dr. Kimberly Young (Boschert, 2013) is a self-rated scale developed for screening and measuring level of internet addiction and has been used extensively for this purpose worldwide. It contains twenty questions related to internet usage to be scored on Likert scale from 0 (does not apply) to 5 (always). A total score of between 20 and 49 represent average on-line user (mild addiction), between 50 and 79 represent occasional or frequent problem (moderate addiction), between 80 and 100 represent significant problem (severe addiction). Data entry and analysis was carried out using SPSS version 16, both descriptive and inferential statistics (chi square test) were used for data analysis.

RESULTS

Table -1 shows that majority (63.7%) of the students were from age group 18-21 years. Mean age was 20.84 years with SD as 1.57. Almost all (90.3%) were living in the hostel. Majority (75.2%) of the respondents were Brahmin and Chhetri. 94.7% were Hindu. Among the 113 students, 25 (22.1%) were from first year, 33 (29.2%) from second year,

24 (21.2%) from third year and 31(27.4%) from fourth year. Half (50.4%) of the respondents family income were sufficient for 12 months and extra savings. Majority of their mothers (39.8%) and fathers (46.9%) had bachelor and above education. Majority of the mothers (37.2%) and fathers (52.2%) occupation were service.

Table 1: Socio-demographic Characteristics of the Respondents (n=113)

Characteristics	Number	Percentage
Age (in Years)		
18-21	72	63.7
22-26	41	36.3
Mean ± SD=20.84±1.571		
Place of residence		
Home	11	9.7
Hostel	102	90.3
Ethnicity		
Brahmin/Chhetry	85	75.2
Janajati	28	24.8
Religion		
Hinduism	107	94.7
Buddhist	6	5.3
Educational Level		
1st year	25	22.1
2nd year	33	29.2
3rd year	24	21.2
4th year	31	27.4
Mother Education		
Can not read and write	3	2.7
Primary	19	16.8
Lower secondary	2	1.8
Secondary	31	27.4
Higher secondary	13	11.5
Bachelor and above	45	39.8
Father Education		
Can not read and write	2	1.8
Primary	13	11.5
Secondary	29	25.7
Higher secondary	16	14.2
Bachelor and above	53	46.9
Mother Occupation		
Home maker	26	23.0
Service	42	37.2
Business	31	27.4
Farmer	12	10.6
Painter, handycraft	2	1.8
Father Occupation		
Service	59	52.2
Business	36	31.9
Farmer	10	8.8
Other (driver, painter, handycraft, press operator)	6	5.3
	2	1.8
Retired		

Table-2: Level of Internet Addiction of the Respondents

n=113

Level of Internet Addiction	Percentage
Average on-line user (20-49 score)	92.9
Experiencing occasional or frequent problems (50-79 score)	6.2
Significant problems (80-100 score)	0.9

Table-2 displays that almost all (92.9%) of the respondents were average on-line user, 6.2% were experiencing occasional or frequent problems and 0.9% was significant problems because of internet.

Table-3: Impact of Internet Addiction on Education

n=113

Variables	Percentage
Utilizing the Internet	
For educational purposes	2.7
Both (for educational and non educational purposes)	97.3
Academic Performances	
Increased	24.8
Decreased	18.6
Same Level	56.6
Study Habit	
Increased	16.8
Declined	40.7
Same	42.5
Absenteeism	
Increased	19.5
Decreased	80.5
Exams	
Attended	98.2
Skipped	1.8

Table-3 shows that out of 113, most (97.3%) of respondents utilized the internet for educational and non educational purpose. More than half (56.6%) of respondents' academic performances were same level. Near to half (42.5%) of respondents study habit were same. Most (80.5%) of the respondents' absenteeism was decreased. Almost all (98.2%) of respondents attended exam.

Table-4: Association between Level of Internet Addiction and Socio-demographic Variables

n=113

Variables		Level of Internet Addiction			Chi Square	p-value
		Average on-line user N(%)	Occasional/ frequent problems N(%)	Significant problems N(%)		
Age	18-21	68 (94.44)	4 (5.56)	-	1.950	0.417 *
	22-26	37 (90.24)	3 (7.32)	1 (2.44)		
Place of Residence	Home	10 (90.9)	1(9.1)	-	1.430	0.571*
	Hostel	95 (93.1)	6(5.9)	1(1.0)		
Ethnicity	Brahmin/ Chhetri	79 (92.9)	5(5.9)	1(1.2)	0.647	1.000*
	Janajati	26 (92.9)	2(7.1)	-		
Religion	Hinduism	99(92.5)	7(6.6)	1(0.9)	1.334	1.000*
	Buddhist	6 (100)	-	-		
Educational Level	1st year	24(96)	1(4.0)	-	12.091	0.005*
	2nd year	33(100)	-	-		
	3rd year	18(75.0)	5(20.8)	1(4.2)		
	4th year	30(96.8)	1 (3.2)	-		
Family Income	Sufficient for 6 months	13(92.9)	1(7.1)	-	6.553	0.110*
	Sufficient for 12 months	42(100)	-	-		
	Sufficient for 12 months and extra savings	50 (87.7)	6(10.5)	1(1.8)		

Level of significance ≤ 0.05   　　　　　　　　** Fisher exact test*

Table-4 presents that there was association of internet addiction level with educational level (p =0.005) of respondents. But there was no association of internet addiction with age ((p =0.417), place of residence (p=0.571), ethnicity (p=1.000), religion (p=1.000) and family income (p=0.110).

Table-5: Association between level of Internet addiction and Parent's Education and Occupation

n=113

Variables		Level of Internet Addiction			Chi Square	p-value
		Average on-line user n(%)	Occasional or frequent problems n(%)	Significant problems n (%)		
Mother Education	Illiterate	3 (100)	-	-	24.062	0.002*
	Primary	19 (100)	-	-		
	Lower secondary	-	1(50)	1(50)		
	Secondary	31(100)	-	-		
	Higher secondary	11(84.6)	2(15.4)	-		
	Bachelor and above	41(91.1)	4(8.9)	-		
Father Education	Illiterate	2(100)	-	-	8.277	0.597*
	Primary	3(100)	-	-		
	Secondary	27(93.1)	1(3.4)	1(3.4)		
	Higher secondary	4(87.5)	2(12.5)	-		
	Bachelor and above	49(92.5)	4(7.5)	-		
Mother Occupation	Home maker	26(100)	-	-	14.072	0.044*
	Service	39(92.9)	3(7.1)	-		
	Business	28(90.3)	3(9.7)	-		
	Farmer	11(91.7)	-	1(8.3)		
	Other	1(50)	1(50)	-		
Father Occupation	Service	56(94.9)	3(5.1)	-	14.133	0.086*
	Business	32(88.9)	4(11.1)	-		
	Farmer	10(100)	-	-		
	Other	6(100)	-	-		
	Retired	1(50)	-	1(50)		

Level of significance ≤ 0.05   **Fisher exact test*

Table-5 reveals that there was association of internet addiction level of respondent's with mother's education (p=0.002) and occupation (p=0.044). But there was no association with father's education (p=0.597) and occupation (p=0.086)

DISCUSSION

This study shows that majority (63.7%) of the students were from age group 18-21 years and mean age was 20.84 years with S.D. as 1.57. Most (90.3%) of the respondents were living in the hostel. Majority (75.2%) of them were *Brahmin* and *Chhetri*.Almost all (94.7%) were *Hindus*. Among the 113 BSc nursing students 25 (22.1%) were from first year, 33 (29.2%) from second year, 24 (21.2%) from third year and 31 (27.4%) from fourth year. Half (50.4%) of the respondents family income were sufficient for 12 months and extra savings. Majority of respondents' mothers (39.8%) and fathers (46.9%) were bachelor and above education and mothers (37.2%) and fathers (52.2%) occupation were service.

In relation to internet addiction level, present study showed that most (92.9%) of the respondents were average on-line user (mild), 6.2% were experiencing occasional or frequent problems (moderate) and 0.9% was significant problems (severe). However on the contrary,Marahatta et al., (2015) reported 50.8% had mild, 40.7% moderate and 1.3% had severe addiction. Similarly Pramanik et al., (2012) reported 40% had mild, 41.53% moderate and 3.07% severe addiction. This variation in results may be due to population, sampling method and time difference with previous study.

With regard to impact of internet addiction on education, this study showed that, most (97.3%) of respondent utilized internet for educational and non educational purpose. More than half (56.6%) of respondents' academic performances were same level. Near to half (42.5%) of respondents study habit were same. Most (80.5%) of respondents' absenteeism was decreased. Almost all (98.2%) of respondents attended exam. These results are different from the study conducted by Akhter et al., (2013) that showed internet can distract students from their study. Greater use of the internet by dependent users will increase the probability of missing classes and lower grades. Variation in results may be due to different in population, instrument and sample size.

The findings of this study also showed significant association of internet addiction level with educational level (p=0.005), mother education (p=0.002) and mother occupation (p=0.044). But there was no association of internet addiction with age (p=0.417), place of residence (p=0.571), ethnicity (p=1.000), religion (p=1.000), family income (p=0.110), father education (p=0.597) and father occupation (p=0.086). However, in contrast, Bianchini et al., (2017) reported that associationof internet use with educational level was not significant (p=0.704). This variation in results may be due to different in population, sample size, and setting. Nearly similar result was reported by Ahmadi(2014) that students whose father and/ or mother had a doctorate degree were most likely to have internet addiction (P<0.001 for both). Job engagement of mothers was significantly associated with students' internet addiction.

CONCLUSION

Based on the study findings, it can be concluded that majority of the nursing studentsare average on-line user and very few have significant problems because of internet use. All most allutilized the internet for both educational and non educational purposes. Nursing students are vulnerable for internet addiction and efforts should be taken to increase awareness regarding internet addiction and its impact.

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Original Article

Knowledge, Attitude and Practice on Birth Preparedness and Complication Readiness among Pregnant Women Attending in an Antenatal Clinic

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ABSTRACT

Introduction: Birth preparedness and complication readiness is the process planning for normal birth and anticipating the action needed in case of an emergency. Promoting birth and emergency planning helps to improve preventive behaviour, increase awareness of mothers about danger signs and improvement in care seeking behaviour in the case of obstetric complication.

Methods: Cross- sectional descriptive study was conducted to find out knowledge, attitude and practice on birth preparedness and complication readiness among pregnant women attending in antenatal clinic of institution based family planning clinic at Koshi Zonal Hospital, Biratnagar. Data were collected from 116 pregnant women of second ANC visit and above using structured interview schedule in four weeks.

Results: The findings of the study revealed that majority of respondents (69%) were between ages 21- 30 years with the mean age of 23.7±3.2 years. This study depicts that 28.4% of the respondents had inadequate knowledge, 50% of the respondents had moderately adequate knowledge and 21% of the respondents had adequate knowledge. All of the respondents had favorable attitude and 43.1% had inadequate practice, 37.1% of respondents had moderate adequate practice and only 19.8% of respondents had adequate practice. The results revealed that only (9.5%) of respondents were well prepared. Analysis using kruskal Wallis identified statistically significant association between knowledge and practice (p=0.006).

Conclusion: This study identified inadequate knowledge and practices on birth preparedness and complication readiness. Thus, antenatal care clinics should give due emphasis to preparation for birth and its complication and provide information and education to all pregnant women.

Keywords: Attitude, Birth Preparedness and Complication Readiness, Knowledge, Practice

INTRODUCTION

Pregnancy is the physical condition and joyful events of a woman carrying off spring inside her uterus and child birth is the physiological process of giving birth of baby. Unfortunately, many women are dying due to pregnancy and childbirth related complication in developing countries. And maternal mortality is the major health issue of the health system. Global maternal mortality rate of 210/100000 has become a major challenge for safe maternal health (WHO, 2011).Comparatively maternal mortality rate is less in developed countries which is 16, however, this rate is significantly higher in developing nations (240) and the same for South Asia is 220 (WHO, 2012).

Birth and emergency preparedness is an integral component of focused antenatal care, which involves planning for a normal birth and anticipating the action needed in the event of an obstetric emergency (Kinzie & Gomez, 2006). To reduce the risks associated with pregnancy and childbirth and address delays, three

major strategies have been adopted in Nepal such as "promoting birth preparedness and complication readiness including awareness raising and improving the availability of funds, transport and blood supplies", "encouraging for institutional delivery" and "expansion of 24-hour emergency obstetric care services (basic and comprehensive) at public health facilities in every district" (DoHS, 2010).

A Nepal study showed that only 32 % have birth preparedness plan (Nawal & Goli, 2011), which indicates birth preparedness practice and knowledge is low despite of implementation of birth preparedness package by the government which are influenced by numerous variables such as general perception of individual and the community towards pregnancy, knowledge of women and her husband regarding possible danger signs of pregnancy, the attitude towards seeking care in difficulties, decision making environment in the household, possible cost of receiving care and transportation facility etc. The role of pregnant women has a great influence in case of BP/CR (Dahal, 2013). Therefore, knowledge on pregnancy complications, their attitude and practice towards maternal care may be a matter of serious concern. Thus, this study aims to find out the knowledge, attitude and practice about birth preparedness and complication readiness among the pregnant women.

METHODS

A cross-sectional descriptive institution based study was conducted in antenatal clinic of Koshi Zonal Hospital, Biratnagar. The study population were pregnant women, who have attended second ANC visit and above. Sample size was 120 and ethical approval was obtained from Institutional Review Board of Tribhuvan University Institute of Medicine, reference no 191(6-11-E)070/071. Informed consent was obtained from each respondent to ensure the right of the subject before interviewing them. During the data collection period of 4 weeks (6th April to 3rd May 2014) total of 116 mothers were interviewed. Collected data were checked for completeness and entered and analyzed by using Statistical Package for Social Science (SPSS) version 20.In descriptive analysis mean and standard deviations were calculated and Kruskal wallisH Test was used to identify association with accepted level of statistical significance set at p value < 0.05. Inter-quartile range

was used to identify the level of knowledge and practice. Likert scale measurement was adopted to assess the attitude. Birth preparedness was measured by five indicators: identification of delivery place, identification of transport, identification of blood donor, money saving, and antenatal care check-up.

RESULTS

Table 1 : Socio-demographic characteristics and obstetric characteristics of respondents   n=116

Characteristic	Number	Percentage
Age (in years)		
<20	35	30.2
21-25	43	37.1
26-30	37	31.9
>30	1	0.9
Mean age±SD: 23.7±3.2		
Religion		
Hindu	102	87.9
Buddhist	4	3.4
Muslim	10	8.6
Education level		
No education	24	20.7
Can read and write	8	6.9
Primary and Secondary	54	46.6
High secondary and above	30	25.9
Obstetric Characteristics		
Gravid		
1st	58	50
2nd -3rd	56	48.3
>4th	2	1.7
Week of gestation		
24-28	42	36.2
29-32	32	27.6
33-36	35	30.2
37-40	7	6.0

The table shows that the women were on the average 23.7±3.2 years of age. Majority (87.9%) were Hindu. Similarly, (46.6%) respondents had completed primary and secondary school and almostall (93.1%) were home makers(table 1).Half (50%) of the

respondents were primigravida and 48.3% were 2nd -3rdgravida. Regarding to the gestational age, majority (63.8%) were at between 24-32 weeks of gestation and (36.2%) were between 33-40 weeks.

Table 2: Knowledge of Respondents on Birth Preparedness and Complication Readiness

n=116

Components of Birth Prepared and Complication Readiness*	Number	Percent
Attending antenatal clinic at least four times	111	95.7
Preparation of food and clothes (for mother and baby)	106	91.4
Saving money	103	88.8
Identification of place of delivery	87	75.0
Being aware of danger signs	66	56.9
Designating the person who accompanies you in the hospital	57	49.1
Arranging blood donor	57	49.1
Identify a mode of transportation	56	48.3
Identification of skill provider	45	38.8
Decision maker during the emergency	30	25.9

Multiple response

Almost all respondents (95.7%) had knowledge on attending antenatal clinic at least four times and only one forth (25.9%) had knowledge on designating the decision maker during the emergency.

Table 3: Respondent's Attitude on Birth Preparedness and Complication Readiness

n=116

Statements	SD N (%)	D N (%)	A N (%)	SA N (%)
Pregnant woman should plan ahead of time the place she will give birth to her baby.	-	-	15 (12.9%)	101 (87.1%)
Giving birth is normal phenomena; therefore skill provider is not needed. **	104 (89.7%)	6 (5.2%)	5 (4.3%)	1 (0.9%)
Antenatal visit is essential for good maternal and fetal outcome.	-	-	9 (7.8%)	107 (92.2%)
Arranging essential items for delivery may invite misfortune. **	70 (60.3%)	7 (6.0%)	39 (33.6%)	-
Every pregnant woman needs to be aware about danger signs to prevent complication.	-	-	12 (10.3%)	104 (89.7%)
Giving birth is mostly a women's matter, husband has little to contribute. **	95 (81.9%)	13 (11.2%)	8 (6.9%)	-
Mother should have autonomy in decision making to seek treatment.	-	-	46 (39.7%)	70 (60.3%)
Preparation for transportation /blood can be arranged when complication arise. **	73 (62.9%)	5 (4.3%)	38 (32.8%)	-
The person should be designated in advance who will accompany the pregnant women during hospital while giving birth should be designated.	2 (1.7%)	1 (0.9%)	42 (36.2%)	71 (61.2%)
Giving birth is normal phenomena; therefore special allotment of money is not needed. **	116 (100%)	-	-	-

*** Negative statement*

Majority of the respondents (92.2%) had strongly agreed that pregnant woman should plan ahead of time the place she will give birth to her baby and 7.8% had agreed that statement, majority 89.7% had strongly agreed that every pregnant woman needs to be aware about danger signs to prevent complication, and 60.3 % had strongly agreed that mother should have autonomy in decision making. Conversely, in term of negative statement,100% respondents strongly disagreed on the statement that "Giving birth is normal phenomena; therefore special allotment of money is not needed", majority (89.7%) of the respondents had strongly disagreed on giving birth is normal phenomena; therefore skill provider is not needed while 4.3% of the respondents had agreed that statement and 60.3% of the respondents had strongly disagree on arranging essential items for delivery may invite misfortune while 33.6% agreed that statement.

Table 4 : Practices of respondents on Birth Preparedness and Complication Readiness

n=116

Birth plan	Number	Percent
Identified place of delivery	116	100
Family member accompanied in antenatal check up	115	99.1
Designated decision maker	105	90.5
Designated birth companion	102	87.9
Saving money for delivery	93	80.2
Prepared clothes for baby	75	64.7
Prepared essential item for delivery	60	51.7
Prepared clothes for mother	58	50
Arranged for means of transportation	39	33.6
Prepared blood donors	12	10.3

Regarding practice of identifying place of delivery, most of them (94%) had planned to deliver at hospital and who had planned to deliver her baby at home; they had not identified skill attendance at birth and only (10.3%) prepared blood donors.

Table 5: Respondents' Level of Knowledge and Practice on Birth Preparedness and Complication Readiness   **n=116**

	Knowledge		Practice	
Level	Number	Percent	Number	Percent
Inadequate	33	28.4 1	50	43.1
Moderately Adequate	58	50	43	37.1
Adequate	25	21.6	23	19.8

Table 6: Association between Level of Knowledge and Level of Practice

n=116

Level of Knowledge	Level of Practice			p-value
	Inadequate N (%)	Moderately Adequate N (%)	Adequate N (%)	
Inadequate	18(54.5)	14(42.4)	1(3.1)	
Moderately Adequate	26(44.8)	21(36.2)	11(19.0)	0.006*
Adequate	6(24.0)	8(32.0)	11(44.0%)	

*p Significant at ≤ 0.05 level of significance

Kruskal-Wallis test

Table 6 stated that there is statistically significant association between level of knowledge and level of practice on birth preparedness and complication readiness (p-value 0.006).

DISCUSSION

The findings of this study showed that half of respondents (50%) had moderately adequate knowledge, 28.4% had inadequate knowledge and 21.6% had adequate knowledge on the birth preparedness and complication readiness. This finding is in consistent with the study conducted by Silwal (2006) in Gorkha. However, the study conducted by Devi (2011) found that 51% had moderately adequate knowledge, 45% had inadequate knowledge and 4% had adequate knowledge. In regards to components of BPCR, most of the respondents (95.7%) had knowledge on attending antenatal clinic at least four times, 91.4% had knowledge on preparation of food and clothes (for mother and baby), 88.8% had knowledge on saving money, 75% of respondents had knowledge on identification of place of delivery, 49.1% had knowledge on arranging blood donor, 48.3% had knowledge on identify mode of transportation and only 38.8% had knowledge on identification of skill provider. Study done by Hiluf and Fantahun (2008) in Ethiopia found that the respondents had lesser percentage of knowledge on components of BP/CR.

The study findings depicts that all of the respondents had favorable attitude. In contradiction to the findings of Devi, (2009), which showed majority (64%) had moderately favorable attitude, 34% had favorable attitude and 2% had unfavorable attitude.

Regarding the practice, less than half (43.1%) of the respondents had inadequate practice, 37.1% had moderate practice and 19.8% had adequate practice. Even though they had moderate knowledge and favorable attitude, they had low level of practice. It might be what people say may not necessarily be what they practice. All of the respondents had identified place of delivery. However, the study (Karkee et al; 2013) found similar results that around eighty five percent had identified place of delivery. Majority (94%) of respondents had planned for delivery in hospital which was similar to the study conducted by Njelita (2011) was 93%. This might

be because of the attraction towards monetary incentives for institutional deliveries in government health facilities. Even though majority (88.8%) of respondents had knowledge on skill birth attendance is the person for management of delivery but none of them had identified skill birth attendance at birth.

The saving money is important especially for women belonging to poor household economic status. In this study, 80.2% had saved money for childbirth which was supported the study conducted by Mutiso et al; (2008), and Karkee et al; (2013). However, study conducted by Nawal & Goli (2013), revealed lower percentage of preparation for money 30%. In this study, 33.6 % arranged means of transportation ahead of childbirth which is higher as compared to a study conducted by Nawal and Goli (2013) and lower than the study conducted by Karkee et al; (2013). The reason could be that this study was conducted in the center of the city where better access of transportation was available.

Regarding the preparation of blood donor, only 10.3% had prepared blood donors similar findings of Karkee et al. (2013). However, Nawal and Goli (2013) found that the respondents were less prepared for blood donors which were less than 5%. On the other hand this less preparation of blood donors before delivery might be due to the fact that most pregnant women do not want to anticipate undesirable events in pregnancy, delivery. Regarding the level of birth preparedness and complication readiness, this study shows majority 69% were not prepared, and 31.5 % were well prepared.

The study depicts that there was statistically significant association between knowledge and practice on birth preparedness and complication readiness.

CONCLUSION

Based on the result, it is concluded that level of knowledge affects the level of practice on birth preparedness and complication readiness. So education programme on birth preparedness and complication readiness is an important factor. It is also concluded that majority of the respondents relay on their husband decision in an emergency situation, targeting the men in the preparation of birth and its

complication is necessary to mitigate complication during pregnancy.

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Original Article

Quality of Life among Chronic Renal Failure Patients Undergoing Hemodialysis at Teaching Hospital of Province 5

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ABSTRACT

Introduction: Chronic renal failure is an irreversible progressive condition responsible for high morbidity and mortality of the patients. It requires life-long treatment in the form of renal replacement therapy, the quality of life (QOL) of patients may significantly impair. The objective of study was to assess the quality of life of patients with chronic renal failure undergoing hemodialysis at Teaching Hospital province 5, Banke Nepal.

Methods: Descriptive cross - sectional study design was used among 54 patients using non probability purposive sampling technique. QOL was assessed using the World Health Organization Quality of life (WHOQOL-BREF) questionnaire. Data were collected through interview technique and analyzed by using descriptive and inferential statistics.

Results: Out of 54 patients 57.4% were male and 42.6% female. The mean age was 43.88± 12.56 SD. Out of four domains (Physical, psychological, environmental and social), QOL scores were recorded: over all QOL (64.53±13.22), physical domain (18.98±3.43), psychological domain (15.24±4.079), environmental domain ((18.70±5.39) and social domain (7.66±1.94).The overall quality of life of patients with chronic renal failure undergoing haemodialysis had poor quality of life among 57.40% and high quality of life among 42.59%. There is moderate positive correlation (r=.569) between health satisfaction and quality of life.

Keywords: Chronic kidney disease, Hemodialysis, Quality of life

INTRODUCTION

Quality of life is an important parameter that needs to be addressed in chronic diseases like CKD under going hemodialysis. In recent years kidney related health problem have been emerging as a major public health problem leading to decrease the quality of life. Limited expertise and growing burden of kidney failure is major concern for resource poor country like Nepal. Unlike in the past, when the sole concern was to prolong survival of patients with CKD, equal importance is now being given toward maintenance of QOL (Joshi et al; 2017).

CKD is a major public health problemworldwide and is associated with considerable morbidity and mortality. CKD is a newly

In Nepal, the prevalence of end-stage renal disease (ESRD) is increasing. National Kidney Centre estimated that as much as 10 percent of the populations, 2.6 million people are affected by some kind of kidney disease. Kidney care experts believe that approximately 2600 new ESRD patients are added every year in Nepal (Garofyllou et al; 2017).

Kidney disease is a worldwide public health problem, with increasing incidence and prevalence. The treatment and management

Chronic kidney disease (CKD) is a worldwide public health problem with increasing incidence and prevalence. The treatment and management of kidney disease is expensive and often outcome are poor (Eknoyan et al; 2004). CKD is defined as kidney damage or glomerular filtration rate (GFR) <6ml/

min/1.73m2 for three month or more, irrespective of the cause kidney damage in many kidney diseases can be ascertained by the presence of albuminuria defined as albumin to creatinine ratio >30 mg/g in two of three spot urine specimens (Levey et al; 2002)

Global Burden of Disease study was done during 2013, CKD accounted for 956,200 deaths worldwide, which was approximately 134% increase from that of 1990 (Abubakar, Tillmann, & Banerjee, 2015). Study conducted across 12 countries, including Nepal, showed that the overall prevalence of CKD in Nepal was at 20.1% (Ene-Iordache et al; 2016).

The prevalence of CKD and ESRD is rising rapidly throughout the world, including India. It is estimated that as of 2015, 55,000 Indians are on hemodialysis, with the number rising by 10-20% each year (Jha, 2013).

Dialysis treatment results in prolongation of life for most patients. However, patients on dialysis face limited survival combined with loss of Health Related Quality Of Life (HRQOL) and treatment itself generates considerable burden on daily life in terms of chores to be completed, time taken to obtain dialysis, expense of treatment and hospitalization or complications. (Abdelghany, Elgohary, & Nienaa, 2016).

In the study of 50 CKD at B & B hospital and Blue cross hospital of Nepal reported that, among fifty patients 32 were male (64%) and 18 were female (36%) with mean age of patient 47.14 ± 16.65. out of eight domains studied, energy level, feeling of happiness with life and thought of full energy on self and worming out of life and tiredness perception was found to be equal on pre and post stage. Physical functioning was found to be decreased. Patient on hemodialysis reported improvements in nearly all aspects of general functioning and psychological wellbeing. (Gyawali, Paudel, Chhetri, Shankar, &Yadav, 2013).

Reports of teaching hospital of Chitwan, Nepal study among 96 CKD patient undergoing hemodialysis, the findings showed that higher proportion were from 40-59 years (41.0%) and male (62.2%). The mean ± SD as 57.45± 16.25, 55.72 ±22.41 and 60.04± 11.50 in overall QOL, physical and mental component were slightly above than average. Below

average score were seen in general health (32.86 ± 25.74) and vitality (41.53 ±13.98) sub scale.51.0% respondents said that their general health status were fair, 57.3% respondents said get sick a little easier than other people, 37.5% respondents said as healthy as anybody. (Ghimire & Lopchan, 2017).

The interaction with many patients undergoing hemodialysis revealed that patients are suffering with many psychosocial problems and decreased quality of life. Common problems include changes in body image, dependence of technology and uncertainty regarding the future, feeling of illness, depression, anxiety and social problems like relationship with relatives and friends, job and community roles and responsibilities are probably altered.

METHODS

Descriptive cross-sectional study design was used to find out the quality of life of patient with chronic renal failure undergoing hemodialysis.

The study setting was Nepalgunj medical college teaching hospital in kohalpur Municipality- 11 provinces 5 Banke. All the study population (54 cases) of the hemodialysis patients who has completed the 3 months duration of hemodialysis and willingness to participate were included in the study.

Non probability purposive sampling technique was used and data collection instrument consists of two parts. Part I related to socio-demographic characteristics (age, sex, marital status, educational level, occupation and duration of illness). Part II related to WHOQOL – BREF questionnaire consists of 26 items. Items 1 and 2 assess individuals overall perception of QoL and health and remaining 24 items are categorized under physical, psychological, social relationships and environmental domains. Each item is rated by a 5-point likert's scale. The total items for four domains were twenty four in which highest score are 120 and lowest score is 24. Similarly, Physical domain consists of seven items (7-35), psychological domain consists six items (6-30), environmental domain consists of eight items (8-40) and social domain consists of three items 15 score (3-15). On the basis of the mean score of the domain the quality of the life of the patients are categorised into high and low quality of life. Data were collected through face to face interview technique after ensuring informed

written consent. Confidentiality was maintained throughout the study. Data were analyzed by using Statistical Package for Social Science (SPSS 21) version, descriptive statistics and inferential statistics.

RESULTS

Out of 54 hemodialysis patients, 57.40% were male and 42.59% were female. The mean age was 43.88± 12.56 SD (Table1). Out of four domains, QOL scores were recorded: overall mean score of QOL (64.53±13.22), physical domain (18.98±3.43), psychological domain (15.24±4.079), environmental domain ((18.70±5.39) and social domain (7.66±1.94). On the basis of mean score, 31 having low level of QOL where as 23 having high level of QOL. Similarly, on physical domain 27 patients having high QOL whereas same 27 having low QOL, psychological domain 32 having low QOL followed by 22 were high QOL. On environmental domain, 31 having high QOL where as 23 having low QOL, similarly in social domain 28 having low QOL and 26 having high QOL.

Table 1: Demographic Characteristic of the Respondents   **n=54**

Characteristics	Number	Percentage
Age in years		
18-34	15	27.7
35-60	30	55.55
>60	9	16.6
Mean±SD		
43.88±12.56		
Sex		
Female	23	42.6
Male	31	57.4
Marital status		
Married	52	96.3
Unmarried	2	3.7
Educational level		
Illiterate	19	35.2
Basic level / primary	12	22.2
Secondary	15	27.8
Higher secondary	8	14.8
Occupation		
Employed	333	7.40
Unemployed	50	92.59
Duration of illness		
3 month to 1 yr	29	53.7
>1 yr	25	46.3

Table 2: Perceived Quality of Life of Respondents

Responses	Not at all N (%)	Not much N (%)	moderately N (%)	great deal N (%)	Completely N (%)
Support from other	38(70.4)	4(7.4)	8(14.8)	3(5.6)	1(1.9)
Responses	**Very poor**	**Poor**	**Neither poor nor good**	**Good**	**Very good**
Rate your life	25(46.3)	15(27.8)	12(22.2)	2(3.7)	-
Responses	**Very dissatisfied**	**Dissatisfied**	**moderate satisfied**	**satisfied**	**Very satisfied**
Satisfy with health	18(33.3)	20(37.0)	8(14.8)	8(14.8)	-

Table 3: Level of Quality of Life of Respondents According to Various Domains

Domain	Minimum	Maximum	Mean± SD	Low QOL	High QOL
Physical	13.00	28.00	18.98±3.43	27(50%)	27(50%)
Psychological	7.00	24.00	15.24±4.07	32(59.25%)	22(40.74)
Environmental	8.00	27.00	18.70±5.39	23(42.59%)	31(57.40%)
Social	3.00	13.00	7.66±1.94	28(51.85%)	26(48.14%)

Table 4: Overall Level of Quality of Life of Respondents

Minimum QoL Score	Maximum QoL score	Mean and SD	Low QoL	High QoL
38.00	94.00	64.53±13.22	31(57.40%)	23(42.59%)

Table 5: Correlation between WHO QOL-BREF Score and Demographic Variables

n=54

		Sex	Occupation	Edu. level	Marital status	QoL score	Health Satisfaction
Sex	Pearson Correlation	1	-.017	.419	.169	.275	.311
	Sig. (2-tailed)		.904	.002	.222	.044	.022
Occupation	Pearson Correlation	-.017	1	-.111	-.276	.223	.344
	Sig. (2-tailed)	.904		.422	.044	.105	.011
Edu_level	Pearson Correlation	.419	-.111	1	.141	.189	.326
	Sig. (2-tailed)	.002	.422		.310	.172	.016
Marital status	Pearson Correlation	.169	-.276	.141	1	-.218	-.116
	Sig. (2-tailed)	.222	.044	.310		.114	.402
QoL__score	Pearson Correlation	.275	.223	.189	-.218	1	.569
	Sig. (2-tailed)	.044	.105	.172	.114		.000
Health satisfaction	Pearson Correlation	.311	.344	.326	-.116	.569	1
	Sig. (2-tailed)	.022	.011	.016	.402	.000	

DISCUSSION

Out of 54 patients, majority 55.55% were age above 35 years and 57.4 % were male. The mean age was 43.88± 12.56 SD. The findings of the study was supported by the study done by VK, Parajuli & Sharma, 2013 at B.P. Koirala Institute of health science Dhahran, Nepal that majority 52% were age above 40 years and majorities 72% were male. Similarly, on physical domain mean and SD (18.98±3.43) half (50%) having high QOL and same as (50%) having low QOL, psychological domain mean and SD (15.24±4.07) more than half 32 (59.25%) having low QOL followed by 22 (40.74%) having high QOL, On environmental domain mean and SD (18.70±5.3931) more than half (57.40%) having high quality of life where as 23 (42.59%) having low quality of life, similarly in social domain mean and SD (7.66±1.94) more than half 28 (51.85%) having low QOL followed by 26(48.14%) were high QOL. The findings of the study was supported by the Joshi et al., (2017) at two centre of Nepal reported that psychological domain (51.23±18.61), social domain (49.86±21.64), which states that poor QOL. Similar study was also done by Rana and Shakya, 2017 at Manipal Teaching Hospital and Western Regional Hospital, Pokhara Nepal state that poor QOL but the study was contradicts with the findings with physical domain and environmental domain, physical domain (45.93±16.90) environmental domain (53.17±15.59).

CONCLUSION

Study findings concluded that patients with chronic renal failure undergoing haemodialysis had poor quality of life. When health satisfaction among dialysis patient increase, quality of life is also increase. So the patient health satisfaction activity should be increase to increase quality of life of patient.

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Original Article

Care Received by Women during Labour at a Tertiary Level Hospital, Nepal

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ABSTRACT

Introduction: The adequacies of health care services women receive during pregnancy; intra-natal and postnatal periods are crucial for the survival and well-being of the mother and her new-born. The aim of study was to assess care received by women during labour. Care during labour is directed towards achieving the best possible physical, emotional, and psychological outcome for the woman.

Methods: A descriptive observational design was used in the study. Hundred and fifteen women in active labour were selected through non-probability purposive sampling method. Data were collected by using structured observational checklist and entered in SPSS version 16. Data were analysed by using descriptive statistics i.e. frequency, percentage, mean and standard deviation.

Results: Women received adequate care (81.2%) in Infection Prevention (IP), communication, support, and companionship (70.1%), respectful maternity care (79.7%), first stage of labour (62.4%), second stage of labour (56.9%), third stage of labour (98.8%) and recording and reporting (78.2%). But in overall, only few (3.5%) women received adequate care and almost all(96.5%) of women received average care with mean percentage care score 65.32 ±4.648SD.

Conclusion: The study concludes that the highest proportion of women received average care during labour and only few women received adequate care. Minimal or poor care practices were observed in the use of personal protective device and newborn care. The study suggests that equal focus should be given in all domains of maternity care with due respect while caring to the woman during labour.

Keywords: Care, Labour, Quality, Women

INTRODUCTION

In 2016, estimated maternal mortality ratio in Nepal was 239 deaths per 100,000 live births and pregnancy related mortality ratio was 259 for every 100,000 live births. During the 7 years preceding the survey, 57% of deliveries take place in a health facility and among them only 58% percent of deliveries are conducted by skilled birth attendants (Nepal Demographic Health Survey [NDHS], 2016). The presence of skilled birth attendants is important for averting maternal morbidity and mortality. Unfortunately, qualified midwives, nurses and doctors are often not available in the rural areas of many developing countries where most women are delivered. All the pregnancies and childbirth are at risk and giving birth to a child is not only a strain for the body, but it also puts the woman's health at risk (Holst, 2014). So, all women need pregnancy care, care in childbirth is most important for the survival of pregnant women (Baral et. al., 2012). Despite global progress in reducing maternal mortality, immediate action is needed to eliminate preventable maternal mortality (Leontine et al., 2016). Even in health facilities, however, failures in the processes providing quality of care can result in bad obstetric and neonatal outcomes (Sharma et. al., 2017). The quality of care offered at maternity facilities not only affects pregnant

women both emotionally and physically but also has an impact on the long-term health and survival of mothers and neonates. An increased focus on care during childbirth can lead to reductions in disability, maternal and neonatal mortality, and stillbirths (Sharma et. al., 2017). Enhancing education and introducing quality improvement systems will help to prevent harmful labour and childbirth practices and implement the evidenced-based practices which ultimately improve the maternal health (Ponndara e. al; 2012).

The Nepal government has produced 9,000 skilled birth attendants (SBA) by the end of the 2073/2074 (DOHS Annual Report, 2015/16). Unfortunately, majority of SBAs has been limited to the government health facilities. A few numbers of SBAs are found working in private and other facilities, which are insufficient for coverage especially in the private health facilities. In spite of much information exists and emphasis is given in the quality and adequacy of maternity care in Nepal, there are very few researches have been found on the quality and adequacy of care received by women during labour. Hence, the study aimed to assess the care received by women during labour at a tertiary level hospital.

METHODS

Descriptive observational research design was used to assess the level of care received by women during labour. Hundred and fifteen women in active phase of labor were selected through non-probability purposive sampling technique. Self-developed structured observational checklist was used to collect the data based on WHO recommended guidelines for intrapartum care for a positive childbirth experience (WHO, 2016). It consists total 80 items which included infection prevention and control, use of personal protective equipment, communication support and companionship, care during different stages of labour, care of newborn and recording and reporting**.** Ethical approval was obtained from IRC, BPKIHS, Dharan and informed consent was taken from each woman. Data were collected from 30 December 2018 to 25 January 2019 by researcher herself through non-participatory observation method. Sample size estimation was done based on the prevalence (63%) of previous study on "Assessment of quality of midwifery care in labour

and delivery wards of selected Kordestan Medical Science University, Tehran, Iran," conducted by (Masoumeh et al., 2009). This study considered 95% confidence interval and 80% power to estimate the sample size. For this purpose, the study considered 63% compatibility with desirable midwifery care provided to women in second stage of labour rand 15% permissible of error, sample size was calculated 115by using the following formulan = $\underline{Z^2pq}$.Then, adding 15% (i.e., 14) non-responsive in calculated sample size then it became= 115.Thecollected data were entered in Microsoft excel and transferred into Statistical Package for Social Science (SPSS) version -16 and descriptive statistics i.e. frequency, percentage, mean and standard deviation were used to analyse the data.

RESULTS

The majority (89.6%) of the women belonged to the age group (21-34) years. The mean age was 24.67 with ±4. 613SD. Below half (46.1%) of the women belonged to Janajati and majority (81.7%) of the women were Hindu. Similarly, almost all (97.4%) of the women were literate. Majority (60.0%) of women were primi-gravid (Table 1). Regarding the information received by the care providers, 33.3% were proficiency certificate level nurses and majority (70.8%) had less than five years of work experience. Among them, only few (20.8%) had received maternal and neonatal health related training (Table 2).

Describing the different dimensions of care received by women, adequate care (81.2%) in infection prevention (IP) protocol but provider's performance was poor (42.6%) in use of personal protective equipment (PPE). Similarly, women received average care in communication, support and companionship (70.1%), respectful maternity care during labour (79.1%), during first and second stage of labour 62.4% and 56.9% respectively.

Women received adequate care in third stage (98.8%), fourth stages (84.3%) of labour and in recording and reporting (78.2%) whereas, inadequate (49.5%) newborn care were observed. In overall, the result revealed that almost all (96.5**%)** women received average care and minimal (3.5%) women received adequate care.

Table 1: Socio-demographic Characteristics of Respondents

(n=115)

Characteristics	Number	Percentage
Age (years)		
<20	9	7.9
21-34	103	89.6
≥35	3	2.6
Mean age in years ± SD (Min – Max)	24.67±4.613	(16 40)
Ethnicity		
Dalit	8	7.0
Janajati	53	46.1
Madhesi	22	19.1
Muslim	2	1.7
Brahmin/Chhetri	30	26.1
Religion		
Hindu	94	81.7
Kirat	9	7.8
Bauddha	6	5.2
Christian	3	2.6
Islam	3	2.6
Education		
Literate	112	97.4
Illiterate	3	2.6
Gravida		
Primi	69	60.0
Multi	46	40.0

Table 2: Characteristics of Care Providers

(n=24)

Education Level	Number	Percent
ANM courses	2	3.4
PCL Nursing	8	3.3
Bachelor Nursing	2	8.3
PG Student (Nursing)	4	6.6
PG Student (OB/GYN)	4	16.6
Obstetricians (MD)	4	16.6
Work Experience in related field		
>5 years	7	29.2
<5 years	17	70.8
Training related to Maternal and Newborn Care		
Received	5	20.8
Not Received	19	79.2

Table 3: Overall Care Provision for Women in Different Areas and Stages of Labour

(n=115)

Descriptions	Obtained Score (%)	Total Score
Infection prevention during provision of care	654 (81.2)	805
Use of personal protective devices	245 (42.6)	575
Communication, Support and Companionship	645 (70.1)	920
Respectful Maternity Care during labour	275 (79.7)	345
Care received during first stage of labour	646 (62.4)	1035
Care received during second stage of labour	1244 (56.9)	2185
Care received during third stage of labour	909 (98.8)	920
Care received during fourth stage of labour	582 (84.3)	690
Care provision for newborn	455 (49.5)	920
Recording and Reporting	472 (78.2)	604
Total	6127 (68.08)	8999

Table 4: Level of Care Received by Women during Labour

(n=115)

Level of Care	Number	Percent
Inadequate Care (< 50%)	-	-
Average Care (≥50 – 74%)	111	96.5
Adequate Care (≥75%)	4	3.5

DISCUSSION

The mean percentage care score was 65.32. Almost all of women received average care and very minimal women received adequate care. The study finding shows that adequate care (81.2%) in Infection Prevention (IP) protocol, but provider's performance was poor (42.6%) in use of Personal Protective Equipment (PPE). All care providers had worn sterile gloves in every procedure and hand washing before procedure was poor but most of them clean hand by sensitizer after procedure. (Tabatabaei et al; 2016). A Cross-Sectional study on Infection Control Practices and Program Management in Labour and Delivery Units, Iran showed only 40% hand hygiene maximum score was maintained. Women receive adequate care in communication, Support and Companionship (70.1%), The similar findings found in the study from Brazil conducted by Marcia Leonardi Baldisserotto et. al., (2016) where 90% of women assessed as excellent of their relationship with the team of caregivers, such as privacy in the birthing place, the empathic support of professionals, clarity of information received, and time to ask the staff questions.

Majority (79.7%) of women in labour receives Respectful Maternity Care (RMC) during labour. Verbal abuse observed as unsocial language and physical abuses were ranges from pushing, pinching to slapping on the woman's thigh during second stage of labour (19.1%). The result is consistent with another study Sharma G., et. al., (2019) on "an investigation into mistreatment of women during

labour and childbirth in maternity care facilities in Uttar Pradesh, India: showed physical abuse ranged from slapping the pregnant woman, to hitting and pinching her thighs or restraining forcefully. Verbal abuse ranged from talking down to the pregnant woman, using foul language and threatening women to do caesarean sections, if they did not stop shouting or crying. The result also shows that there was poor or no provision for maintaining privacy (99.1%) study done by Marie Hoftun Jaeger and Fredrik Skar (2017) on "Quality of Care in the maternal and delivery ward in rural Nepal," had shown that greatest breach of privacy was that there were no curtains between the two beds that were only a meter apart.

The total care percentage was (62.4%), (56.9%), (98.8%) during first, second and third stage of labour respectively and inadequate care (49.5%) observed in new-born care. Vital signs assessment and recording was the neglected areas of care and recording and reporting of labour events were adequate in majority (78.2%) of the respondents except the incompleteness of partograph.

CONCLUSION

The study concludes that almost all the women in labour received average care and only few women received adequate care during labour. Minimal or poor care practices were observed in the use of personal protective device and newborn care. Hence, the study recommend tha tequal focus should be given in all domains of maternity care with due respect while caring to the woman during labour.

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World Health Organization (Goal & Strategy, 2016) recommendations Intrapartum care for a positive childbirth experience Transforming care of women and babies for improved health and well-being Executive summary.

Original Article

Perception of Lifestyle Modification Recommendations among Type 2 Diabetes Patients attending at a Tertiary Level Hospital, Kathmandu

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ABSTRACT

Prevalence of Type 2 diabetes Mellitus (DM) is increasing globally. The objective of this study was to identify perception of life style modification recommendations among type 2 diabetes mellitus patients attending at diabetes clinic at Tribhuvan University Teaching Hospital, Kathmandu, Nepal.

Methods: Descriptive cross-sectional study design was adopted and involved 104 diabetes patients using non- probability purposive sampling technique. Data were collected through an interview by using a structured interview schedule.

Findings: Data were analyzed using SPSS version 16.0. Among the respondents, 29.8% were of 50-59 years age group, 51.0% were female, 63.5% were Brahman/Kshetri, 22.1% were illiterate, 89.4% were married, and 50% lived in a nuclear family and 73.1% were from Kathmandu Valley. Forty four percent were diagnosed for 1-5 years and 43.3 % had family history of diabetes, 70.19% respondents perceived that both regular exercise and planned and controlled diet were as important lifestyle modification to control type 2 diabetes mellitus; and 41.3% respondents felt exercise as potentially exacerbated illness. Similarly, 52.8% respondents perceived that DM patients should eat low carbohydrate, high fiber, and low fat and low calorie diet (89.02 %). More than half of the respondents perceived that cessation of alcohol and smoking is important for DM patients. Maintaining a modified lifestyle is time consuming and a difficult task (61.0%) for them.

In conclusion, Perception of lifestyle modification such as planned and controlled diet and exercise play an important role in the management of patients with type 2 DM. However, significant numbers of respondents had perceived that exercise as potentially exacerbating illness. So, proper counseling is recommended to combat such perception.

Keywords: diabetes mellitus, lifestyle modification, perception

INTRODUCTION

The prevalence of diabetes mellitus (DM) has been increasing all over the world in past 30 years. The global diabetes prevalence for the year 2015 was found to be 8.5%, affecting 415 million adults {International Diabetes Federation (IDF), 2015}. DM affects at least 171 million people and causes 3.2 million deaths, six deaths every minute and 8700 deaths every day. In 2030, there will be an increase of 70% in the number of cases in developed countries, and 42% in developing countries. Currently, the overall direct health care costs of DM ranges from 2.5% to 15% of annual health care budgets of developed and developing countries. This is likely to affect 366 million people by 2030 (World Health Organization (WHO) 2006}. The rate of DM is increasing in the developing countries. DM affects more than 436000 in Nepal and this number will rise to 1328000 by 2030 (Subedi, & Bandhu, 2005). Similarly diabetes death in Nepal reached 3,224 (2.17%) of total deaths (WHO, 2011). A survey conducted in urban Nepal between 2001 and 2002 showed that 10.8% and 13.2% of males suffered from diabetes and pre-diabetes respectively, with the values for females being 6.9% and 10.2%, respectively (Shrestha, Singh, & Bhattarai, 2006). The Nepal Diabetes Association has reported that DM affects

approximately 15% of people ≥ 20 years and 19% of people ≥ 40 years of age in urban areas (Bhattarai, & Singh, 2007). The percentage of diabetic patients had increased from 19.04% in 2002 to 25.9% in 2009 in Nepal (Dulal, & Karki, 2009). Type 2 DM has long been connected with behavioral and environmental factors such as overweight, physical inactivity and inappropriate dietary habits (Narayan, Bowman, & Engelgau, 2001). Major lifestyle changes resulting from industrialization are contributing a rapid rise in diabetes worldwide. Lifestyle intervention has shown effective significant changes over control in body weight and improving insulin sensitivity and that helps to prevent DM (American Diabetes Association, 2003). Physical activity alone plays a pivotal role in health promotion and diabetes control (American Diabetes Association, 2005).

Perception of lifestyle modification recommendations can lessen the disease burden and reduce the morbidity and mortality associated with type 2 DM complications. However, there is no information and data concerning perception of lifestyle modification recommendations amongst the studied population in Nepal. So, this research aimed to identify perception of lifestyle modification recommendations (healthy dietary habits and exercise) amongst type 2 DM patients attending at Diabetes clinic of Tribhuwan University, Teaching Hospital (TUTH), Kathmandu.

METHODS

This descriptive cross-sectional study was conducted among 104 diabetes patients who attended at diabetes clinic of TUTH, Kathmandu. TUTH is a tertiary level hospital with different health service facilities where patients visit for treatment from different geographical areas of the country.

Patients who had type 2 DM diagnosed for at least one year before the time of data collection were included purposively. A semi structured, interview schedule developed by researcher herself, was used as tool for the data collection. Data collection was done through face to face interview technique. Data were collected from March to May 2014. Data collection tool was divided into two parts such as socio-demographic profile and perceptions of diabetes patients on the role of lifestyle modification recommendations in the management of type 2 DM. The interview schedule

was formulated according to a model established during literature review and translated into Nepali language. Pretest was done among ten percent (i.e. 11) cases of total sample size in endocrinology OPD, Bir Hospital, Kathmandu.

The data were checked for completeness and analyzed by using statistical package for social sciences (SPSS) version 16.0 and simple descriptive statics such as frequency and percentage were used. Ethical approval was taken from institutional review board (IRB), TU IOM. Further, verbal consent was obtained from each respondent before taking interview.

RESULTS

Among the total 104 respondents, the majorities (57.7%) were in the 40-59 years age group and 25.0% of them were 60-69 years old. The mean age of the respondents was 53.8 years (SD± 10.5). More than half (50.1%) were female. The majority of the respondents (63.5%) belonged to Brahman/Kshetri ethnic group followed by Janajati (29.8%). Regarding the educational status of the respondents, 77.9% were literate. Regarding occupation, 40.4% were house makers whereas only 19.2% were each service holders and business persons. Regarding the marital status, 89.4% of the respondents were married. Fifty percent respondents lived in a nuclear family, 73.1% of the respondents were residing in Kathmandu Valley and remaining 26.9% were from outside Kathmandu Valley (Table 1).

Table 1: Socio-demographic Characteristics of the Respondents

n=104

Variables	Number	Percent
Age in Completed Years		
30-39	10	9.6
40-59	60	57.7
60-69	26	25.0
70-89	8	7.7
Mean age =53.8,(SD=±10.5)		
Sex		
Female	53	51.0
Male	51	49.0
Ethnicity		
Brhaman/Kshetri	66	63.5
Janajati (Newar, Rai/ Limbu, Tamang)	31	29.8
Dalit	4	3.8
Others (Yadav, Shah, Giri)	3	2.9
Education Level		
Illiterate	23	22.1
Informal education	16	15.4
Primary level	15	14.4
Secondary level	19	18.3
Higher secondary level	16	15.4
Graduate level and above	15	14.4
Occupation		
House Managers	42	40.4
Services holders	20	19.2
Agriculture	4	3.8
Business	20	19.2
Others (Informal sectors, Retired from job)	18	17.3
Marital Status		
Married	93	89.4
Unmarried	3	2.9
Widow	6	5.8
Divorce/ separated	2	1.9
Type of Family		
Nuclear	52	50.0
Joint	50	48.1
Extended	2	1.9
Address		
Kathmandu Valley	76	73.1
Out of Kathmandu Valley	28	26.9

It was found that 44.2% of respondents had duration of diagnosis between 1-5 years. Similarly, 43.3% of respondents had family history of DM and 20.2% were unsure about their family history. All of them (100.0%) had heard about the life style modification regarding DM (Table 2).

Table 2 : Illness Related Characteristics of the Respondents

n =104

Duration (in years)	Number	Percent
1- 5	46	44.2
6- 10	36	34.6
11-15	15	14.4
15-20	7	6.7
Family History		
Present	45	43.3
Absent	38	36.5
Unsure	21	20.2
Heard about Life style modification		
Yes	104	100.0

It was found that 70.19% of the respondents perceived of having both regular exercise and planned and controlled diet as important life style modifications for controlling DM. Similarly, 20.19% and 1.92% of respondents perceived that only planned and controlled diet; and taking medicine as most important life style modification respectively. The majority (77.9%) of the respondents agreed that exercise is important to control DM but 14.4% did not agree on it. Similarly, 41.3% had negative perception that exercise exacerbated the illness. Respondents perceived that planned and control diet had proper role to control DM (89.4%) and 82.9% believed that diet including fruits & vegetables was good for DM patients, DM patients should eat low carbohydrate and high fiber diets (52.8%) and low fat and low calorie food (89.0%). Only 1.2% respondents perceived that DM patients can eat any kind of food. Likewise, cessation of alcohol intake and smoking was important for DM patients (61.0%) but 60.97% respondents perceived that maintaining lifestyle was time consuming and difficult task (Table 3).

Table 3: Respondents' Perceptions of Life Style Modification (Diet and Exercise)

n=104

Variables *	Number	Percent
Regular exercise only is most important life style modification for DM patient	1	0.96
Planned and controlled diet only is most important life style modification for DM patient	21	20.19
Both(Regular exercise and Planned and controlled diet) are most important life style modification for DM patient	73	70.19
Taking Medicine is most important life style modification	2	1.92
Role of Exercise to control Diabetes Mellitus is very important	81	77.9
Role of Exercise to control Diabetes Mellitus is not important	15	14.4
Exercise as Potentially Exacerbating Illness i.e. as Negative Physical Reaction	43	41.3
Diet plays important role to control diabetes.	93	89.4
Diet includes fruits & vegetables i s good for DM patients	68	82.9
Diabetes patients can eat any kind of food	1	1.2
DM patients should eat Low carbohydrate and high fiber diets	43	52.8
DM patients should eat low fat and calorie food	73	89.02
Cessation of alcohol intake and smoking is important for DM patients.	50	61.0
Maintaining Lifestyle is time consuming and difficult task	50	60.97

*Multiple responses

DISCUSSION

It was found that 70.19% of the respondents had perception of having planned and controlled diet and exercise both as a life style modification to control DM. About 0.96% of respondents perceived regular exercise only as an important life style modification and 20.2% respondents perceived that planned and control diet as an important life style modification to control diabetes. Out of total respondents, 1.92% perceived that taking medicine as life style modification but 6.7% respondents had no idea of life style modifications. These findings are supported by the study done in Kuwait where most patients (69.1%) had strong beliefs that adherence to a diet regimen and regular exercise could have a positive effect on their diabetic condition (Serour et al. 2007). Self-perceptions, beliefs and responses to diabetic condition significantly influence adherence to lifestyle measures. For example, compliance may be compromised if people with type 2 DM do not believe that lifestyle modification recommendations-healthy diets and physical activity affects their glycaemic control. Similarly, study that more than two third of individuals with diabetes believe strenuous exercise would improve their diabetic control; but majority find it difficult to initiate and sustain (Thomas et al. , 2004) . In the present study, 41.3% respondents had perceived negatively that exercise as a potentially exacerbating illness i.e. as negative physical reaction. This is supported by a study done in Botswana where exercise was considered to potentially exacerbate the illness by 57.6% (Adewale, Langalibalele, Nomsa, Indiran & Gboyega, 2013), In contrast, study done in India reported that 93% respondents' perception was regular exercise helped to control DM (Srisanthanakrishnan & Shah, 2016). This difference may be due to difference in study setting and population.

Similarly, 89.4% respondents perceived that diet plays important role to control DM in our study. Study done in India reported that 72.1% respondents perceived that modification of dietary pattern played an important role to control DM (Srisanthanakrishnan & Shah, 2016). Similarly, 95.1% respondents perceived that diet was important to control DM (Adewale, Langalibalele, Nomsa, Indiran & Gboyega, (2013). In this study, 52.8% and 89.0% respondents had perception of DM patients should eat low carbohydrate, high fiber, low fat and low calorie food respectively.

CONCLUSION

Though the respondents had positive perception regarding life style modification like diet and exercise, some had perception of exercise as a potentially exacerbating. A significant number believed that life style modification is time consuming. So, further counseling should be done to combat these negative perceptions.

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Original Article

Determinants of Self Medication Practice among Adolescents of Higher Secondary Schools, Bhaktapur

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ABSTRACT

Introduction: Self-medicationis an important health issue globally and more common in developing countries like Nepal and India. Self-medication is one of the common and preferred modes resorted by adolescents.

Method: A descriptive cross sectional study was carried out to find out the determinants of self-medication practice among adolescents, data was collected among 426 adolescents of grade 11 and 12 enrolled in five higher secondary schools, Bhaktapur municipality by using structured and semi-structured self-administered questionnaire. Proportionate stratified sampling technique was used to select the schools with, enumeration sampling technique.

Results: Data analysis was done by using descriptive and inferential statistics. Multivariate Logistic regression analysis was used to identify the determinants of self-medication practice. Out of 426 adolescents, 69.71% had used self-medication. The bivariate analysis showed number of factors associated with self-medications such as age, gender, type of family, educational level of respondent and parents, occupation of parents, income source and family income status. The multivariate analysis showed that probability of consuming drugs increase in adolescent with illiterate mother 1.901 times more likely to use self-medication than those literate mothers and whose family income status was poor 1.59 times more likely to use self-medication.

Conclusion: The study concluded that educational level and family income status were the determinants for self-medication among adolescents of higher secondary school of Bhaktapur.

Keywords: Adolescents, Determinants, Self–Medication

BACKGROUND

Self-medication is the use of drugs with therapeutic intent but without professional advice or prescription. Self-medication practice is human behavior in which an individual uses a substance or any exogenous influence to self-administer treatment for physical or psychological aliments. The most widely self-medicated substances are over- the counter drugs and dietary supplements.

Medications are one of the main options in the cure, treatment, and prevention of numerous medical conditions. In fact, medication is the primary treatment associated with restoration of health (Shoemaker & Ramolho, 2008). The incorrect practice of self-medications can result in irrational use of drugs. This irrational use may take the form of overuse, under use and misuse of drugs. Incorrect use of drugs occurs in all countries, causing harm to people and wasting resources {World Health Organization (WHO), 2011}. Children and adolescents are more susceptible to the irrational use of drugs. Some of the factors responsible for self-medication are the easy availability of the drugs through pharmacies without prescription, lack of strict rules and regulations in selling drugs, quality of health care and difficult access to health care services (Pereira, Bucaretchi, Stephan, & Cordeiro, 2007).The prevalence of self-

medication practice in India is 31%, Pakistan 51% and Nepal 59% (Zafar et al., 2008).The overall objective of the study was to find out the determinants of self-medication practice among adolescents during illness.

METHODS

A descriptive cross-sectional study design was adopted to find out the determinants of self-medication among the students of higher secondary school of Bhaktapur Municipality. The population was adolescent students of grade 11 & 12. Proportional stratified sampling was adopted for selecting the each school respondents with randomly selected five higher secondary schools and number of required sample from each school was taken enumeration sampling technique and sample size was 426. Structured self-administered questionnaire was administered for data collection. Ethical approval from Institutional Review Boardwas obtained and written permission from concerned higher secondary schools. Data was analyzed by using SPSS version 16, descriptive statistics, Chi-square test were applied to test whether the factors were significant association ($p \leq 0.05$). Odds ratio (OR) was also calculated to measure the strength of association between self-medication and associated factors. The observed bivariate analyzed significant variables were subjected to multivariate analysis to identify factors associated with self-medication.

RESULTS

Table 1: Socio-demographic Characteristics of Adolescents

n=426

Socio-demographic Characteristics	Number	Percentage
Age in years		
16	82	19.24
17	198	46.47
18	131	30.75
19	15	3.52
Mean ±SD= 17.18 ±0.78 years		
Educational level		
Class 11	133	31.22
Class 12	293	68.77
Educational Level of Mother		
Literate	312	73.23
Illiterate	114	26.76
Educational Level of Father		
Literate	395	92.72
Illiterate	31	7.27
Family Income Status		
Enough for up to 6 month	62	14.55
Enough for 6-12 months	199	46.71
Enough for 1 year and surplus	165	38.73

Table 2: Practice of Self Medication by the Adolescents preceding Six Months Period

n=426

Practice of Self Medication	Number	Percentage
Practiced	297	69.71
Not practiced	129	30.28
Frequency of Self Medicine Taken		
One time	133	44.78
Twice	101	34.00
Thrice	29	9.76
More than thrice	34	11.44
Last Time of Self Medication		
One month before	140	47.13
Two month before	102	34.34
Three months before	34	17.25
Four to six months	21	7.07

This table reveals 69.71% respondents had practice of self-medication preceding six months period, 44.78% had used one time and 47.13% had taken before one month. Regarding type of self-medicine, more than half 68.35% had used anti cold and cough tablets and 41.41% of them used pain killer tablet Paracetamol and Flexon. Regarding medicine dispense majority have (82.15%) received from local pharmacy and 75.08% had purchased by telling symptoms of illness.

Table 3: Outcome of Self Medication, Action Taken and Adverse Effects

n=426

Outcome of Self medication	Number	Percentage
Outcome of Self Medication (n=297)		
Recovered	252	84.84
Not recovered	45	15.15
Action Taken for Not Recovered (n=45)		
Consulted to the doctor	27	60.00
Stopped the medicine	8	17.77
Changed the medicine	7	15.55
Took double dose	3	6.66
Faced any Adverse Effects (n=297)		
Yes	77	25.92
No	220	74.07
Action Taken for Adverse Effects (n=77)		
Visit to the doctor	50	64.93
Quit the medicine	16	20.77
Nothing done	11	14.28

This table highlights that 84.84% respondents had felt recovered from symptoms, but not recovered 60% had consulted to doctor for further treatment. While 64.93% respondents had consulted to doctor for adverse effects.

Table 4: Association between Socio-demographic Characteristics and Use of Self Medication by the Adolescents

n= 426

Respondent Characteristics	Self-Medication		χ2	P-value	Unadjusted OR (95% CI)
	Practiced N (%)	Not Practice N (%)			
Family Income Status					
Enough for up to 6 months	192 (73.6)	69 (26.4)	4.719	0.03**	1.59 (1.045-2.42)
Enough for 1 year and surplus	105 (63.6)	60 (36.4)			
Educational Level of Mother					
Illiterate	90(78.9)	24(21.1)	6.28	0.012**	1.901 (1.144-3.164)
Literate	207(66.3)	105(33.7)			
Educational Level of Father					
Illiterate	23 (74.2)	8 (25.8)	0.317	0.573	1.269 (0.552-2.915)
Literate	274 (69.4)	121 (30.6)			

χ^2 is computed for *p*-value, ** significant level is ≤0.05

This table shows that there is statistically significant association between self medication of respondent with family income (*p*-value=0.03) and education of mother (p-value =0.012).

Table 5: Adjusted Odd Ratio in the Final Logistic Model for Those Significant Variables during Multiple Logistic Regression

n=426

Parental Characteristics	Unadjusted OR (95%CI)	P-value	Adjusted OR (95%CI)	p-value
Education Level of Mother				
Illiterate	1.901 (1.144-3.164)	0.012	1.841(3.067-1.104)	0.019**
Literate				
Family Income Status				
Enough up to 6 month	1.59(1.045-2.42)	0.03	1.536 (1.006-2.345)	0.047**
Enough for one year and surplus				

The model was fit as shown by Hosmer and Lemeshow test of significance (p-value=0.981) **Significant p-value at ≤ 0.05

This table highlights all the significant variables in bi-variate analysis were put into binary regression model. It was found that educational level of mother (AOR=1.841; 95% CI=3.067-1.104, p=0.019) was significantly associated with the use of self-medication. Respondents with illiterate mothers were more likely to use of

self-medication than respondents with literate mothers. The major determining factor for self-medication was family income status. Which was statistically significant (AOR=1.536; 95% CI =1.006-2.345, p-value=0.047) respectively. Respondents with family income status enough for less than one year were more likely to use of self-medication in comparison to family income status enough for one year and surplus.

Table 6: Association between the Personal Factors and use of Self Medication by the Adolescents

n=426

Personal Factors *	Self Medication		P-value	OR 95%CI
	Not Practiced N(%)	Practiced N(%)		
Lack of Time				
No	100 (31.4)	218 (68.6)	0.369	1.250 (0.768-2.034)
Yes	29 (26.9)	79 (73.1)		
Past Experience of Same Drug				
No	99 (32.7)	204 (67.3)	0.092	.504 (0.934-2.423)
Yes	30 (24.4)	93 (75.6)		
Minor Illness				
No	62 (30.2)	143 (69.8)	0.987	0.997 (0.659-1.507)
Yes	67 (30.3)	154 (69.7)		
Quick Relief from Illness				
No	71(29.1)	173(70.9)	0.538	0.877 (0.578-1.331)
Yes	58(31.9)	124 (68.1)		
Emergency Conditions				
No	103(30.1)	239 (69.9)	0.881	0.961 (0.573-1.612)
Yes	26(31)	58 (69.0))		

*Multiple responses, χ^2 is computed for p-value, significant level is ≤0.05

This table 6 represents the association between personal factors, lack of time, past experience, minor illness, quick relief and emergency conditions with self-medication. There was no statistically significant association seen. Despite of the past experience, it was 1.504 times more likely to use self-medication among adolescents.

DISCUSSION

This study shows the prevalence of self-medication practice was 69.71% .This study was supported by another study on Gujarat with the prevalence at six months was 88% (Patel et.al; 2013). This study was also supported by study done in South India among medical students showed prevalence of self medication 78.6% (Kumar et al., 2013).

This study shows that family members are the main source of drug information (57.27%) for the adolescents. In a study conducted in Pakistan, major source of information of self-medication among 15 and 20 years, were 48 % from family members, (Khan et al. 2014). However another study conducted in south India shows previous prescription 80.82% as the major source of information followed by pharmacist 36.9%, This is because family members in this part of the world try to treat their minor illness themselves and advice or provide same drugs for their children to treat their symptoms based on their previous experience.

In this study, it is notable that pharmacy is the main place for getting drug for self medication which is nearly consistent with the findings by (Patel et al., 2013). This can be attributed to the fact that there

are no strict rules and regulations regarding supply and provision of drugs in our country and almost every pharmacy has provision in selling drugs to the individual without doctor's prescription.

In this study, common illnesses for self medication are headache (69.48%) followed by cold and cough (68.77%), This finding is quite similar to the results of the study conducted among college students of Delhi University North Campus which shows headache (86.2%) followed by common cold (57.8%) (Adhikary et al; 2014). This might be explained by the fact that the research was conducted immediately after the winter seasons when the flu like symptoms is quite common.

This study demonstrate that the main reason for self-medication are minor illness (51.87%) and there was quick relief from illness for less than forty three percent (42.72%) , Another study conducted in Shiraz, Iranby Askarian showed previous experience and inability to access physician as major causes of self-medication (Askarianet.al., 2013). This has implications, because many diseases have similar symptoms, and a person using self-medication for quick relief to continue their daily activities, may be expose to the dangers of misdiagnosis consequently wrong treatment.

There was also statistically significant association between educational level of mother and self-medication practice. Respondents with illiterate mothers has 1.901 times more likely to use self-medication as compared to respondents with literate mothers (OR=1.901 at 95% CI; 1.144-3.164) (P<0.012). The result of this study is in contrast with the findings of the study conducted in Germany where use of self-medication was found more among higher maternal educational level 1.37 times more likely to use self medication than respondents with lower maternal educational level (OR=1.37; at 95% CI;1.19-1.57) (Du & Knopf, 2009).However educational level of father is not significantly associated with self-medication. The status of family income also shows poor family income status had higher self-medication practice 73.6% that is 1.59 times more likely to practice than those with good family income status. This finding supported with the study on Tunisian people is significantly associated with self-medication (Salem et.al., 2015).

The association between personal factors with self-medication**,** shows no significant association with lack of time, past experience, minor illness, quick relief and emergency conditions. Lack of time is 1.250 times more likely to use self-medication by respondents (OR=1.250 at 95 % CI =0.768-2.034) (p-value 0.369). Respondents with past experience of same drug is 1.504 times more likely to use self-medication; those findings are consistent with a previous study conducted in Karnataka India showed more than half of respondents used old prescriptions (Kumar et.al., 2013).

Similarly, a study conducted in New Delhi University showed that the students

(21.3%) did not have sufficient time for buying medication (Adhikary M, 2014). Next study in Iran showed that 41% students had past experience of self-medication (Askarian at.al.,2013). Finding of the study is also comparable to the study conducted in Pokhara Valley which revealed that 25% felt that the illness was too mild and not require the services of a doctor, 19% of the respondents felt that they had previous experience (Shankar et.al., 2002). Similarly, study conducted in Karachi stated that the most common reasons 33.3% were previous experience with similar symptoms (Afridi et al. 2015).

Regarding association between availability of services with self-medicationshowed not statistically significant. Similarly, a study revealed that cost-effectiveness was major reason to practice self-medication, and 15.8% stated for emergency use. 10.4% felt high cost of doctor fee (Adhikary, 2014).

CONCLUSION

The study concluded that practice of self-medication was high among higher secondary school adolescents for headache cold and cough which belongs to NSAID group. Based on the study findings, the determinants of self-medication were associated with educational level of mothers' and family income status. These findings provide a useful insight on reason for which patients resort to practice and might help the policy maker and regulatory authorities to streamline the process of drug.

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Original Article

Health Seeking Behavior of Family Members of Mentally Ill Patients

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ABSTRACT

Background: Globally mental health problems are serious public health concern. In south Asian country, very few patients with psychiatric disorder seek the treatment from mental health professionals. So, this study aims to find out the knowledge, perception and health seeking behaviors of family members of mentally ill patients attending the tertiary level hospital.

Method: A descriptive cross sectional study was carried out in September 2018. Non probability purposive sampling technique was adopted. Data was collected by using semi structured interview questionnaire among 209 respondents attending in psychiatric OPD of Tribhuvan University Teaching Hospital. Data was analyzed by using descriptive and inferential statistics.

Findings: All respondents had adequate knowledge and almost all (98.1%) respondents had positive attitude toward mental illness. Regarding health seeking behaviors, only (11.5%) of the respondents had taken their patient to psychiatrist at first visit due to family decision. Similarly, 37.8% and 97.1% respondents had taken to psychiatrist at second and third visit respectively. Fifty six percent of the respondents sought treatment within the six months of illness. There was significant association between age, sex, types of family, level of education, and occupation with health seeking behaviors at first visit. Along with this, occupation and duration of illness significantly associated in second and third visit as p- value=<0.05.

Conclusion: Respondents had adequate knowledge and positive attitude toward mental illness, but they sought help from non-psychiatric facilities at first visit and found increasing trend to visit psychiatrist at second and third visit.

Key Words: Health seeking behavior, Knowledge, Mentally ill, Perception

BACKGROUND

Globally, mental health problems accounts for 7.4% of disability adjusted life years (DALY), and 22.9% of all Years Lived with Disability (YLD). In Ghana approximately 2.2 million suffer from mental disorders, and 650,000 of that suffer from severe mental disorder. It is also reported that there is a significant treatment gap (98%),18% of the NCD burden will be due to mental illness till 2020 (WHO, 2012). In Nepal, The burden of mental illness is high with less than efficient mental health services- regarding limited diagnostic, treatment and availability of human resources to address mental health issues. Suicide- the second most common cause of death among young people globally; Nepal has seventh highest suicide rate in the world- mostly among girls and woman of reproductive age (R. Anup, 2018).

It is estimated that four out of five people with mental illness in Low and Middle Income Countries (LMIC) receive no effective treatment and mental health is often one of the lowest health priorities in those settings due to believes regarding unhealthy

behavior {World Health Organization (WHO), 2017}. In Ethiopia in 2010 revealed that half of the patients sought traditional treatment from either a religious healer before they came to the hospital. Traditional healers were the first place where help was sought for mental illness. In India, one in five Indians may suffer from depression in their lifetime, equivalent to 200 million people. Due to the stigma associated with mental illness, a lack of awareness and limited access to professional help, only 10-12% of these sufferers will seek help (WHO,2017).

In Kathmandu, most of the patients (58%) suffering from mental illness prefer to approach faith healers first because of the prevailing trust on faith healers, because they are locally available and because of a prevailing belief in supernatural causation of mental illness (Pradhan, Sharma, Malla, & Sharma, 2014). Similarly, in Fikkal, Ilam one out of five people seek health from traditional healer (Bhattrai et al; 2015). Multi-sectoral action plan for the prevention and control of non-communicable diseases (2014-2020) estimated the 18% of the NCD burden is due to mental illness in Nepal. Therefore, it is utmost important to assess the health seeking behavior of family members of mentally ill patients.

METHODS

Descriptive cross – sectional research design was used and conducted in psychiatric Out Patient Department of Tribhuvan University Teaching Hospital (TUTH), Maharajgunj, Kathmandu. Study Population were the family members of the mentally ill patients above the age of 18 years. Non probability purposive sampling technique was adopted and the sample size was 209 respondents. A semi structured, interview questionnaire was used. Data was collected from September 2nd to 28th, 2018. Before data collection, the proposal was approved by Research Committee of Maharajgunj Nursing Campus Ethical approval was obtained from Institutional review committee. Data were checked for completeness and transferred into Excel 2007, and data analyzed using Statistical Package for Social Science (SPSS) version 20 for further analysis using descriptive statistics and inferential statistics. Chi square test, Fisher Exact test and Likelihood Ratio were used to identify the association between selected variables and health seeking behaviors.

RESULTS

Table 1: Socio-demographic Characteristics of Respondents

n=209

Characteristics	Number	Percentage
Age (in years)		
18- 39	159	76.1
40-59	49	23.4
60 years and above	1	0.5
Mean age ± SD 32.39±9.75		
Sex		
Male	104	49.8
Female	105	50.2
Educational status		
Can read and write	196	93.8
Can not read and write	13	6.2
Level of education(n=196)		
Informal education	13	6.6
Primary level	27	13.7
Secondary level	49	25
Higher secondary level	40	20.4
Higher education	67	34.1
Occupation		
Job	73	34.9
Home makers	42	20.1
Business	40	19.1
Others	35	17.7
Income/month (Rs)		
<10,000	36	17.2
10,000-25,000	24	11.5
>25,000	149	71.3
Types of family		
Nuclear	118	56.5
Joint	91	43.6

Table 1 show that majority of respondents (76.1%) were within the age group of 18– 39 years and only 0.5% were above 60 years. The mean ± standard deviation was 32.39 ±9.75. Female constituted nearly about equal (50.2%) to male (49.8%) of the respondents, most of respondents (93.8%) can read and write, less than fifty percent (34.1%) had higher education. More than half (56.5%) were from nuclear family, less than fifty percent (34.9%) were job holder and only (9.1 %) were farmer under the occupation. Majority of the respondents (71.3%) had more than Rs 25,000 income per month.

Table 2 Respondents' Knowledge Regarding Mental Illness

n= 209

Variables	Numbers	Percentage
Mental health is striking a balance in all aspects of life	159	76.07
Mental illness is curable disease	180	86.1
Suicidal idea is mental illness	123	58.8
Mental illness is not communicable disease	180	86.1
Medicines cures the mental illness	164	78.4
Drugs addiction is mental illness	108	51.6
Vulnerability *		
Poor and uneducated	134	64.1
Working in stress	191	91.3
Children	44	21.0
Young people	106	50.7
Elderly people	103	49.2
Signs and symptom *		
Inappropriate talk	203	97.1
Crying and laughing without reason	199	95.2
Odd behavior in society	203	97.1
Wandering	197	94.2
Phobia	209	100.0
Alteration in sleep	203	97.1
Altered daily life	209	100.0
Causes of mental illness *		
Heredity	161	77.0
Head injury	197	94.2
Chronic disease	98	46.8
Family conflict	199	95.2
Tragedy	133	63.6

*Multiple response**

Table 2 shows only correct alternatives and shows that majority (86.1%) of the respondents replied right answer that mental illness is curable and not communicable disease, and followed by 76.1 % on the meaning of mental health, more than half (58.9%) of the respondents said suicide is mental illness and about half 51.7% replied drugs addiction is mental illness, 64.1% of the respondents said that mental illness occurs to poor and uneducated and people. Regarding signs and symptoms, all the respondents (100%) said altered in daily life, regarding the causes, almost all (95.2%) and (94.3%) replied family conflict and head injury are the causes of mental illness respectively.

Table 3 Respondents' Perception Regarding Mental illness

n= 209

| Variables | Perception regarding Mental illness | | | | | Mean ± SD |
| | SD | D | NA/ND | A | SA | |
	n (%)	n (%)	n (%)	n (%)	n (%)	
Conflict increases mental illness	5(2.4)	6(2.9)	6 (2.9)	90(43)	102(48.8)	4.33±0.86
Reduces the intellectual capacity	0(0)	35(16.7)	25(12)	149(71.3)	0(0)	3.55±.76
Increases family burden	12(5.7)	37(17.7)	42(20.1)	100(47.8)	18(8.6)	3.36±1.05
Reduces the social skill	6(2.9)	42(20.1)	47(22.5)	102(48.8)	12(5.7)	3.34±0.959
Should be given due respect	6(2.9)	5(2.4)	77(36.8)	121(57.9)	0(0)	4.50±0.68
Attempts suicide to seek the attention	85(40.7)	46(22)	57(27.3)	21(10)	0(0)	1.2±2.07
Can perform their task after treatment	6(2.9)	0(0)	18(8.6)	155(74.2)	30(14.4)	3.97±0.70
Can be given responsibility as their ability	85(40.7)	46(22.0)	57(27.3)	21(10)	0(0.0)	3.87±0.715
Not get afraid with mentally ill patients	18(8.6)	56(26.8)	36(17.2)	63(30.1)	36(17.2)	3.21±1.25
Allowed to make friend	13(6.2)	61(29.2)	6(2.9)	98(46)	31(14.8)	3.87±0.71
Talking on suicide will increase the suicide.	26(12.4)	12(5.7)	90(43.1)	69(33)	12(5.7)	3.14±1.05
Should not hide to protect family prestige	3(1.4)	6(2.9)	6(2.9)	135(64.6)	59(28.2)	4.50±0.68

SD= Strongly Disagreed, D=Disagree, ND/NA=Neither disagree, nor agree, A = agree, SA=Strongly agree.

Table 3 shows that respondents' perception regarding mental illness, items ranged from 1-5 liker scale. The highest score for "they should be given due respect" 4.50±0.68, "family conflict increases the mental illness" 4.33±0.86. In contrast, lowest score was found in "Mental ill attempts suicide to seek the attention" 1.2±2.07.

Table 4 Level of Perception regarding Mental Illness

n=209

Level of perception	Number	Percentage	Mean ± SD
Positive Perception	204	98.1	42.8±4.48
Negative Perception	5	1.9	

Table 4 shows that almost all (98.1%) had positive perception regarding mental illness; the mean score and standard deviation was 42.8±4.48.

Table 5 Health Seeking Behaviors related to Sought Health Facilities

n=209

Variables	Number	Percentage
First visit		
Non psychiatric doctors	92	44.0
Traditional healers	84	40.2
Psychiatrist	24	11.5
Pharmacist	9	4.3
Second visit		
Non psychiatric doctors	93	44.8
Psychiatrist	79	37.7
Traditional healers	30	14.3
PHC (other health professional)	6	2.8
Pharmacist	1	0.4
Third visit		
Mental hospital	203	97.1

Table 5 shows that nearly fifty percent (44.0%) and (44.8%) respondents had sought mental health services from non-psychiatric doctors at first and second visit respectively. Similarly (40.2%) and (14.4%) had sought mental health services from traditional healers at first and second visit respectively and only (11.5%), (37.8%), and majority (97.1%) had sought mental health service from psychiatrist at first visit, second and third visit respectively.

Table 6 Association between Health Seeking Behaviors and Selected Variables on First Visit

n=209

Variables	Psychiatrist n (%)	Traditional healers n (%)	#Others n (%)	χ2	p-value
Age					
<32 years	18(15.7)	61(53.5)	35(30.7)	19.908	0.01*
>32 years	58(61.1)	31(32.6)	6(6.3)		
Sex					
Male	6(5.8)	64(1.5)	34(32.7)		
Female	18(17.1)	28(26.7)	59(6.2)	26.8	0.01*
Types of family					
Nuclear family	12(10.1)	42(35.5)	64((54.2)		
Joint family	12(13.1)	50((54.9)	29((31.8)	10.56	0.05*
Level of education					
Cannot read and write	3(23.0)	1(7.6)	9(69.2)		
Up to secondary level	5(5.49)	42(46.1)	42(46.1)		
Above secondary level	13(12.3)	42(40)	42(40)	11.049	0.02*
Occupation					
Employed	12(9.2)	64(48.9)	55(42.0)		
Unemployed	12(15.4)	28(35.9)	38(48.7)	4.014	0.13
Duration of illness					
≤3years	12(13.6)	36(40.9)	40(45.5)		
>3years	12(9.9)	56(46.3)	53(43.8)	0.979	0.61

Significant level at< 0.05, χ2 test #others: non-psychiatric doctors, pharmacist.

Table 6 illustrates that there was statistically association between the health seeking behaviors and age (p<0.01), sex (p<0.01), level of education (p<0.02), There was no significant association with occupation and duration of illness at their first visit.

DISCUSSION

The study reveals that all the respondents had adequate knowledge regarding the mental illness, the most common symptoms reported by respondents as inappropriate talk (97.1%), crying and laughing without reason (95.2%), odd behaviors (97.2%) which is different from a study that showed less aggression/destructiveness (22.0%), loquaciousness (21.2%), eccentric behavior (16.1%) and wandering (13.3%) (Kabir, Iliyasu, Abubakar, & Aliyu, 2004) .Most preferred health seeking facilities was non-psychiatric doctors (44.2%), followed by traditional healers (40.2%), the result found consistent with the study done by Ahmed (2017). There was wide gap between low help-seeking intention (11.5%) and adequate knowledge. It might be due to assessment of knowledge at psychiatric health facilities after frequent contact with psychiatrist.

Perception regarding mental illness shows that, almost all (98.1%) respondents had positive perception regarding the mental illness which was not close with the study of Ahmed (2017) that only 26.5% of the family members had the positive perception to toward mental illness. Present study shows that 14.4% of respondents agreed that patients can perform their task after treatment which was mentioned either strongly (62.8%) or slightly (25.8%) agreed that treatment could help persons with mental illness lead normal lives (CDC, 2010).

Health Seeking Behaviors Related to Mental illness shows only 11.5% of the respondents sought the help from psychiatrist where majority (40.2%) had sought health facilities from non-psychiatric doctors at first visit. The result was found similar as 7.6% sought help from psychiatrist at first (Pradhan, Sharma, Malla & Sharma, 2014), and majority(55.6%) followed by (30.6%) psychiatrists reported the visiting to non-psychiatric doctors and faith healers were found respectively to be third most common preference (Kataria, 2018.). But a study conducted in China, 80% of respondents would seek help from a professional for psychological problems, and 72% respondents preferred to receive help from medical institutions (Yu et al., 2015). Likewise, a study conducted in India had the similar result with the present study that only 10.5% of parents sought treatment from psychiatric doctors at the initial

contact (Patil et al., 2016). Present study showed more than fifty percent (56%) family members had sought help within 6 month of onset of illness which was a bit different with study done in Delhi which was (48%) sought help within 6 month of mental illness (Kataria, 2018).

The association between health seeking behaviors and selected variables reveals that there was significant association between age (p<0.01), sex (p<0.01), types of family (p<0.05), level of education (p<0.02), the similar result was found by the study conducted by Neupane et al., (2016) as the p value =<0.05. Present study showed that, there was association between health seeking behaviors and sex and level of education (p<0.05) was consistent with the study done by Yu et al., (2015) where p <0.05. Similarly literate respondents were seven times more likely to exhibit positive feelings toward the mentally ill as compared to non-literate subject (OR =7.6, 95% confidential interval =3.8-15.1 (Kabir, Iliyasu, Abubakar & Aliyu, 2004) .

CONCLUSION

Almost all respondents had adequate knowledge and positive perception regarding the mental illness. Regarding the health seeking behaviors, less than half of the respondents had visited non psychiatric doctors followed by traditional healers, a few of the respondents had visited the mental hospital at first visit. In the second visit and third visit, it was in increasing trend to visit to speialized professional. There was significant association between ages, types of family, occupation, income of the respondents with health seeking behaviors

LIMITATIONS: Study was conducted only in psychiatric OPD of TUTH, so cannot be generalized. The health seeking behaviors related to mental illness were self-reported so there might be the chance of recall bias.

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Ocular Injuries in Children: Nursing Assessment and its Management

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ABSTRACT

Eye injuries are common in children and are the common preventable cause of blindness. As the children are the future pillar of the country, for them an eyes are the most sensitive of all sense organs. The aim of this review is to share knowledge about eye injuries among the children and its nursing care. An eye injury can be a painful and scary experience usually presents with marked eye pain, redness, swelling with watering. The basic types of injuries are chemical, thermal, radiation and mechanical. For both acid and alkalis injury, immediate eye irrigation with prompt, profuse and prolonged manner should be carried out. Other common eye injuries are corneal abrasion, subconjunctival hemorrhages, extra ocular and intraocular foreign bodies, open and closed globe injuries. While many minor eye injuries can be treated at home by flushing the eye with water, more serious injuries need medical attention with ophthalmic nurses and ophthalmologists. Topical antibiotics and in few cases corticosteroids are instilled to prevent infection and scarring. Parents and children should be well educated about causes and sequences of common ocular injuries.

Keywords: Chemical injury, Corneal brasion, Foreign bodies, Radiation injury, Thermal injury.

INTRODUCTION

In this era of high speed traffic and industrialization, the incidence of ocular injuries is increasing in children. Small objects or liquids can get into the eye causing eye red, sting and discomfort. Eye injuries can range from the very minor to the sudden disaster resulting in permanent loss of vision. These types of injuries can occur anywhere in the workplace, at home, agriculture field, from accidents, or while participating in sport activities. Eye injuries are the preventable cause of blindness. Despite the fact that the eyes represent only 0.27% of the total body surface area and 4% of the face, these are the third most common organs affected by injuries after the hands and feet(Boyd and Recchia,2009). Worldwide there are approximately 1.6 million people blind from eye injuries, 2.3 million bilaterally visually impaired and 19 million with unilateral visual loss. Ocular trauma has been reported to be the commonest cause of unilateral blindness (Karmacharya, 2010).

CLASSIFICATIONS

Mechanical Injury: It includes extra ocular foreign bodies in an eye, blunt trauma by fist and blunt instruments, falls, projectile objects etc, penetrating and perforating injuries and intraocular foreign bodies.

Chemical Injury: These are quite common. Amongchemical, alkali burns are the most dreadful injuries. Sources for alkali burns are like caustic potash, color powders in Holi, cement, plaster, fertilizers, refrigerators and drain cleaners etc. Acid burns are less serious than alkali burns. Sources for acid burns are like sulphuric acid, hydrochloric acid, vinegar, glass polish ingnitric acid, toilet cleaner, fruit and vegetable preservatives etc. In acid as well as alkali ocular injuries children are brought with acute red eye with burning,photophobia,tears with marked eye pain.

Thermal Injury: Thermal injuries are caused by fire,hot fluids,heated materials,cigarette,kitchen oils, and exposure to fire,hot gases etc. Any ocular burn is

an ophthalmic emergency because of the rapid ocular tissue damage that it can cause.

Electrical Injury: Its cause is electrical short circuits. Passage of electric current in an eye causes electric cataract, iridocyclitisretinal hemorrhages, optic neuritis, red eye with opacification.

Radiation Injury: Sources for radiation injury is ultraviolet and infrared rays that can cause photokeratitis and conjunctivitis, radiation cataract etc (Raj, 2017).

NURSING ASSESSMENT

A nurse not only has to assist the ophthalmologist in the management but sometimes may be the first person to attend the emergency. So she needs to be well versed with the nursing assessment and first aid care which is often very important and may prevent childhood blindness. Several reviews were carried out to synthesize the concept from website and research papers on ocular injuries among the children.

Proper history including nature of injury, circumstances, time and likely objects should be noted. Hands should be washed thoroughly before approaching the eye.

Visual acuity should be monocularly taken to know the extent of vision loss. Pupillary examination including size, shape and reaction is crucial.

Intraocular pressure (IOP) measurement and extra ocular motility examination may be helpful for diagnosis.

Other necessary investigations that the nurse may advice and assist after consultation with ophthalmologist are X –rays,CT scan and MRI of orbit and brain, USG in cases of intraocular foreign bodies. But time should not be wasted on prolonged history taking if urgent treatment is necessary or indicated especially in chemical and thermal injuries. It should be started in minutes.

Examination should be carried out very gently and undue pressure should not be applied. A small child may be difficult to examine adequately and may need general anesthesia for evaluation and management.

Eyes with surface foreign bodies should not be rubbed. Penetrating injuries may be covered with a plastic or metal eye shields to protect the eye until the patient is seen by the doctor. Such injuries require tetanus prophylaxis.

A nurse should advise the patient not to eat or drink until ophthalmologist gives any instructions (Shrestha and Shrestha, 2011).

NURSING CARE AND MANAGEMENT

Chemical Injury: initially removal of irritant material should be done. Immediately copious irrigation with sterile ringer lactate (RL) or even balanced salt solution should be done for at least 30 minutes with 500-1000 ml of fluid with an intravenous infusion set till the PH comes to normal level. This process is done to neutralize the toxic reactions due to chemicals within the eyes. Debridement of necrotic corneal epithelium is necessary to allow proper re-epithelialization. An antibiotic drops 3-4 times daily and ointment at night time to be administered. Cycloplegics and lubricating eye drops should be applied to relieve pain and photophobia (Ramgopal, 2013)

Thermal Injury: all necrotic epithelium should be removed by the ophthalmologist. Topical antibiotic and cycloplegic drops should be instilled with ointment at bed time. VitaminC (Ascorbic acid) should also be given because it improves wound healing and synthesis of collagen. To reduce inflammation corticosteroid eye drops should be applied under the supervision of ophthalmologist. Bandage contact lenses which act as a bandage for the wound can be fitted for proper re-epithelialization of cornea (Basak, 2007).

Radiation Injury: cold compression with ice packs should be done. Analgesics and cyclopentolate drops should be applied for pain. Ocular NSAIDs drops along with lubricating eye drops and ointment at bed time should be applied. Oral vitamin C help in early recovery (Shrestha and Shrestha, 2011).

Superficial Ocular Foreign Body: in beginning to make child comfortable, lignocaine or xylocaine eye drop should be instilled in the affected eye. Foreign body should be removed by swab stick or sterile hypodermic needle. Then cornea and conjunctival

sac should be washed with normal saline thoroughly. For prophylaxis, antibiotic drops at day time and ointment at bed time should be applied. For fasthealing, eye pad can be applied for 24 hours. If cornea is involved then atropine sulphate eye drops or ointment should be put to relieve ciliary spasm and photophobia (Khurana, 2016).

In case of corneal abrasionan antibiotic eye ointment is applied along with an eye pad and bandages left overnight. The patient is examined next day for healing and to rule out possibility of infection. For intraocular foreign bodiesit needs immediate evaluation by an ophthalmologist. Foreign body should be removed as soon as possible and oral antibiotics should be prescribed for few days (Malla, Pradhan and Joshi, 2018).

In case of penetrating and perforating eye injuries antibiotic drops but no ointment should be applied. Sterile eye pad and bandage should be applied. Systemic antibiotics and transportation to tertiary level ophthalmic center should be carried out (Karmacharya, 2010)

If the child is brought with subconjunctival hemorrhages to absorb the blood in the conjunctiva, cold compression for 5 to 10 minutes twice daily and assurance should be given. For symptomatic relief,astringent and lubricating eye drops can be prescribed. (Datta and Chakraborti, 2013).

PREVENTION: Alertness averts accidents. So, parents should be advised to be vigilant and practice safety measures. In home,sharp tools and chemicals should be kept away from the reach of children. Children also should be educated about the safety of eyes. They should be discouraged from playing dangerous games like bow and arrow,catapult,sli nging,throwing stone and mud etc. While playing outdoors,protective eyeglasses or goggles should be worn. Parents and caregivers for children need to practice safe use of common items that can cause eye injury like pencils, scissors,rubber bands,bungee cords,wire coat hangers etc (Boyd and Recchia, 2009).

CONCLUSION: Ocular injury is the most common preventable cause of blindness in children. Most of the ocular injuries are an ocular emergency that requires prompt and prolonged treatment. Among that chemical injuries with alkali and acid must be treated within minutes. Nurses can play an important role in educating parents in preventing ocular injuries including in first aid management and in prevention of further damage to eyes.

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Nursing Care of the Client with Dengue Fever: Nepal Perspective

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ABSTRACT

Dengue is an acute viral illness caused by RNA virus of the family Flaviviridae and spread by Aedes mosquitoes. Presenting features may range from asymptomatic fever to dreadful complications such as hemorrhagic fever, shock associated with other symptoms of muscles and joint pain, cutaneous rash etc. Early and accurate diagnosis is critical with good nursing care and vigilant treatment may reduce the mortality. Although dengue virus infection is usually self-limiting, it has come up as a public health challenge in our country.

This paper has the synthesis of reviews with short epidemiology, transmission cycle, clinical and laboratory diagnosis, surveillance, prevention and nursing care. The content has been extracted from various reports and publications through online access and also reviewed the national guidelines of Nepal.

**Keywords:** Dengue, Hemorrhagic fever, Nursing care, Prevention and Control

INTRODUCTION

Dengue is caused by a virus of the Flaviviridae family, a mosquito-borne viral disease transmitted by female mosquitoes by *Aedesaegypti* and, to a lesser extent, *Ae. Albopictus* with other four distinct viruses that can infect human. WHO has classified dengue as Dengue without warning, with warning signs and Severe Dengue (WHO,2009).Dengue is widespread throughout the tropics, with local variations in risk influenced by rainfall, temperature and unplanned rapid urbanization (Brady, et al; 2012).

Dengue affects most Asian and Latin American countries and has become a leading cause of hospitalization and death among children and adults in recent decades. This disease is now endemic in more than 100 countries. The outbreak pattern of this infection has seen in Delhi, India since 2006, United States 2015 and Pacific Island countries in 2016. An estimated 5,00,000 people have severe dengue require hospitalization each year, and case fatality have been reduced to less than 1%with significant improvement in case management through capacity building at country level (WHO, 2020).

In the context of Nepal, the outbreak has been seen in different time series from 2004. The number of reported cases has significantly increased in different parts of Nepal ranging from plain Terai to west to east (Khetan, et al; 2018). The largest outbreak was seen in 2019 with 14442 cases (WHO, 2020). Most of these cases were observed in the district of Chitwan, Kaski, Kathmandu, Rupandehi and Makawanpur. Till to date total 68 districts has reported such cases (Adhikari & Subedi, 2020).

According to Nepal Epidemiological Disease Control Department (EDCD 2019) clinical features varied from mild to severe characterized with flu like symptoms such as high fever of (40°C/104°F), rashes, severe headache, eyes pain, muscle and joint pains, nausea, vomiting, swollen glands which usually last for 2–7 days, commonly termed as the critical phase and typically most people recover in this stage. In the other hand the severe dengue is life threating, where fever starts below 38°C with severe abdominal pain, persistent vomiting, rapid breathing, bleeding gums, fatigue restlessness and blood in vomit. These symptoms are due to plasma leaking, fluid accumulation, respiratory distress, severe bleeding and organ impairment. The next 24–48 hours of the critical stage can be lethal, hence, proper

medical and nursing care is important. Diagnostic test ranges from Virological, Serological test including full blood count and occult blood (Wang & Sekaran, 2010).
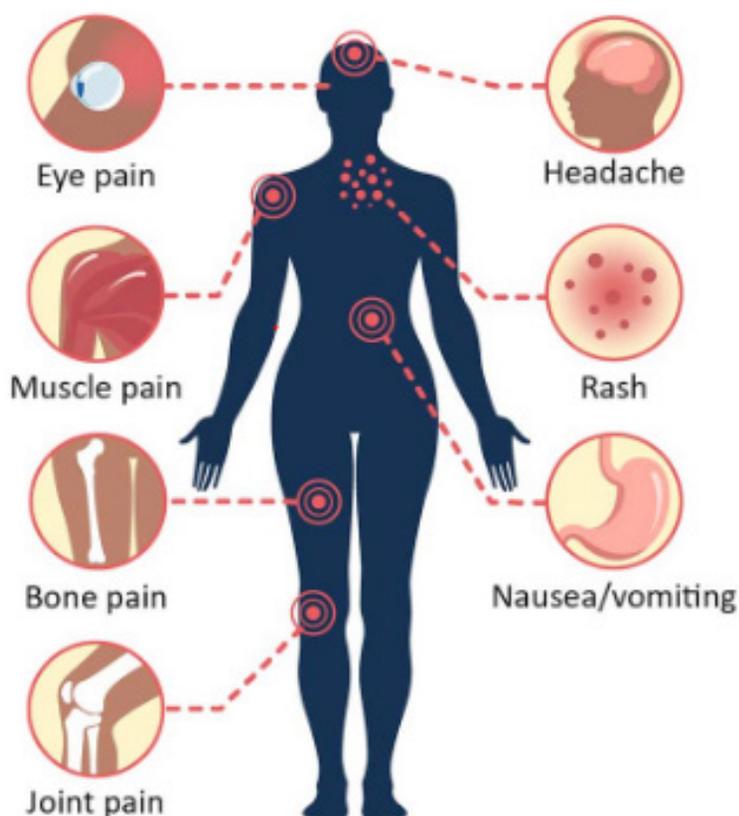
Common features of Dengue

Dengue control programme strategies and activities in Nepal (GoN, MOHP Annual Report, 2074/75)

Strategies	Activities carried out
• Early case detection, diagnosis, management and reporting • Regular monitoring of dengue surveillance. • Mosquito vector surveillance in municipalities. • The integrated vector control approach where combinations of several approaches are directed towards containment and source reductions	• Training physician, nurses, paramedics and laboratory technicians for case detection, diagnosis, management and reporting. • Orientation to municipality stakeholders. • Supply of rapid diagnostic test kits. • Case monitoring and vector surveillance. • Search and destruction of dengue vector larvae • Develop and disseminate health educational messages.

Treatment and Nursing management: There is no specific treatment for dengue fever. Symptomatic management is crucial and quality nursing care and timely management will help to improve patient's outcome.

Nursing Care Plan of Patient with Dengue Fever

Nursing Assessment	Nursing Diagnosis	Nursing Intervention
Assess the vital signs: Temperature, Pulse , Respiration Blood Pressure, Spo2, Pain level	• Alteration in thermoregulation • Risk for ineffective tissue perfusion related to failure of the circulatory system. • Risk for shock related to dysfunction in the circulatory system.	• Mild fever can be reduced by applying tepid cold sponging, whereas high fever needs Antipyretics such as Paracetamol or Acetamophin. • Offer drinks that have low temperature, but donot induce chills, it may conserve more energy. • Check temperature half hourly and record to assess general condition of patient initially and at least every four hourly later. • Assess the general condition of patient to know the progress and regression of diseases.
Evaluation of capillary refill and skin color for bleeding in various sites.	• Risk for bleeding related to possible impaired liver function. • Deficient fluid volume related to vascular leakage.	• Assessment of increased capillary permeability. • Observe for nasal bleeding, petechie over the skin and manage accordingly • Documentation of findings and timely reporting.
Assessment of the urine output for scanty urine	• Alteration in urinary output: • Deficient fluid volume related to vascular leakage in the body.	• Maintain intake and output chart strictly. • Encourage fluids at least 3 liters (3000ml) per day to washout waste products as well as viruses and to compensate fluid loss through sweating.
Assess for abdominal pain and severe headaches.	• Alteration in comfort: pain in abdomen, headache and restlessness.	• Maintain calm and quiet environment, so that patient gets enough rest to conserve energy and not to interrupt during sleep. • Maintain physical and mental peace. • Limit patient's physical activity and help to change position regularly. • Help to relieve pain and keep the clothing light and non- irritating. • Pay particular attention to pressure areas of patient with prolonged confinement to bed especially with elderly people, frequent change of position and skin care. • Provide comfortable mattress. • Administer other medicines as prescribed.
Assess for appetite and state of nausea and vomiting.	• Alteration in appetite, nausea and vomiting.	• Serve soft easily digestible, high nutritive foods four to five times daily. • Offer oral care and help to stay hydrated. • Nutritious diet, rich in protein and vitamins are to be served in order to repair wear and tear of the body tissues. • Offer attractive serving of food to stimulate appetite.

CONCLUSION

Dengue is a mosquito borne viral disease that has spread in many countries worldwide in recent years. In Nepal dengue is rapidly emerging disease with multiple symptoms varying from mild to hemorrhagic fever resulting fatal condition. Prevention, clinical case management, surveillance, vector control and outbreak responses are ongoing steps in Nepal as per national guidelines. Quality nursing assessment and care are the gateway to reduce morbidity and mortality.

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Review Article

The Midwifery Model of Care: A Quality Maternal and Newborn Health Initiative

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ABSTRACT

The Midwifery model of care is based on the evidences that most pregnancies, labors, and births are normal biological processes that result in healthy outcomes for both mothers and babies. It consists of maximizing the health and wellbeing of mother and baby, early identification and management of health problems including emotional, social and spiritual aspects of pregnancy and birth. The Midwifery model of care include; monitoring physical, psychological and social well-being of the mother; providing individualized continuity of care, education, counseling and hands-on assistance; minimizing technological intervention and identifying and referring women who require obstetrical attention. Evidences from Sweden, UK and Malaysia have shown that midwifery model is associated with a number of important benefits for mothers and babies. Most studies reported greater satisfaction with midwifery-led model of care compared with other models and it is cheaper and women friendly. The history of midwife led center in Patan Hospital, other hospitals are the milestone in Nepal, and recent government initiation of onsite midwife led birthing unit (OMBU) is remarkable.

Conclusion: All pregnant women should be offered midwifery model of care unless they have serious medical or obstetric complications requiring medical attention and government initiatives for OMBU and professional midwives are our road map for quality care.

Keywords: Continuity of care, Midwife, Midwifery model

INTRODUCTION

Midwifery Model of Care means a philosophy of care that is based on the fact that pregnancy and birth are normal life processes that result in healthy outcomes for both mothers and babies. The core characteristics of midwifery model of care are being with women, listening to women and sharing knowledge and decision making with women. The Midwifery Model of Care includes monitoring the physical, psychological, and social well-being of the mother throughout the childbearing cycle; providing the mother with individualized continuity of care, education, counseling, continuous hands-on assistance during labor and delivery, and postpartum support. This model of care minimizes the technological interventions; and identifying and referring women who fall outside his/her scope of practice(The Midwives Model of Care, 2010). Midwifery model can be practiced in any setting like, clinics, private hospital, home, birth centers etc as per country context.

Despite good evidence in various studies, that underscore the benefits of midwifery model of care and the heightened satisfaction of women who use midwives, most communities in the United States fail to promote a midwifery model of care ("Models of Maternity Care," n.d.). A intervention study found that people felt need of midwifery model of women center care (Lundgren, Berg, Nilsson, & Olafsdottir, 2019). Similarly unplanned caesarean section and postpartum hemorrhage, preterm births and admission to neonatal intensive care unit was lower in women taking midwifery model of care (Mortensen et al., 2019)

Midwifery model of care includes three aspects:

A dignity-protective action takes place in a midwife's caring relationship with a childbearing woman at high

risk and includes mutuality, trust, ongoing dialogue, enduring presence and shared responsibility.

The midwife's embodies knowledge is based on genuineness to oneself and consists of theoretical, practical, intuitive and reflective knowledge.

Finally, midwives have a special responsibility to balance the natural and medical perspectives in the care of childbearing women at high risk, especially by promoting the women's inborn capacity to be a mother and to give birth in a natural manner.

BENEFITS

Every women deserves access to the high quality, safe personalized, attentive, affordable and respectful care of a midwife (The Midwives Model of Care, 2010).Midwife takes the lead in planning, organizing and delivering her care from her first antenatal booking to the postnatal period. However, sometimes a team of midwives shares a caseload. (Midwife-Led Continuity Models versus other Models of Care, 2016) Several studiesindicated that midwifery model of care was associated with reduction in the use of epidural anesthesia, fewer episiotomies and instrumental births, and increased spontaneous vaginal births and increased breast feeding practice (Sandall, Soltani, Gates, Shennan, & Devane, 2016).The International Confederation of Midwives (ICM) has also promoted the midwifery model of care based on respect for human dignity, compassion and the promotion of human rights for all persons (ICM, 2014).

A Cochrane review of 15 trials also revealed that the levels of continuity of care ranged from 63-98% in midwifery model of care and 0-21% in other models of care (WHO, 2016). In midwife led setting caesarean birth were lower but the duration of labor tend to be for about half an hour longer on average. Maternal satisfaction was also higher in midwifery model of care compared with other models (WHO midwife led care delivers positive pregnancy outcome 2016) and Sandall et al; Midwife-Led Continuity Models Versus Other Models of Care 2016)

In regards to cost of care ANC provider cost was 20-25% lower with the midwifery model of care than other models because of staff costs and other resources (WHO, 2016).The other research findings importantly state that the reduction in preterm birth is 24 per cent; a significant finding, is the strongest value, used to influence policy making within clinical practice (Sandall et al; 2016)

A study published in the Cochrane library mentioned that, in several developed countries, such as the UK and Australia, midwives represent the main providers of care for women during pregnancy and childbirth. Midwife-led continuity of care and being cared for by a known, trusted midwife during labour including multidisciplinary network of consultation and referral with other care providers.

The government of Nepal has prioritized the quality of care by the midwives human resources by producing the separate cadre to meet the universal health coverage reaching to unreached people and in the process of safe motherhood roadmap with concept of onsite midwife led birthing units (OMBU) in selected health facilities.

Childbirth Models of Care

	Medical Model of Care	Midwifery Model of Care
Philosophy	Birth is viewed as a pathological event	Birth is viewed as physiological process
	Body is unpredictable and cannot be trusted to birth physiology	Technology is inherently riskier than normal uninterrupted birth
	Medical intervention can and should be used even in non-emergency situation	Physiological principles should be utilized.
	Care provider is regarded as key decision maker	Woman is regarded as the key decision maker
Response/ Reasoning	Prenatal care focuses on pathology(finding problems)	Prenatal care focuses on the woman and her life
	Care providers uses medical interventions and treatments as preventive measures	Care provider monitors for changes and intervene or transfer to hospital if needed
	Medical professionals assess and control the birth process	The woman is allowed more control over the process, including monitoring and assessments
Outcomes	Baby is born healthy most of the time	Baby is born healthy most of the time
	Some complication of nature are avoided	Complications of medical interventions are avoided
	Risks of intervention are added	Increased risk of missing complications of nature due to reduced intervention
	Medical providers need more control to address complications of medical intervention	Interventions used only as needed, woman takes more control in decision making regarding interventions.

Source: Childbirth Models of Care: Medical vs. Midwifery – handout – The Doula Shop at New Beginnings 2020

CONCLUSION

Based on the extensive reviews of the studies, it can be concluded that all women should be offered midwifery-led model of care unless they have serious medical or obstetric complications. Policymakers in different countries of the world where health systems do not provide midwife-led care should consider the importance of midwives in improving quality maternity care.

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Review Article

Extra Corporeal Membrane Oxygenation: A Lifesaving Technology

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ABSTRACT

Extracorporeal membrane oxygenation (ECMO) is a mechanical circulatory support device that is used when the heart and/or lung functions are affected by severe disease or organ dysfunction. ECMO therapy provides temporary, lifesaving support to the body until surgical intervention or more permanent treatments can be provided. It may be instituted in a variety of health care settings, from the emergency room to the operating room. It has proven efficacy and is an accepted modality of care for respiratory or cardiopulmonary failure in pediatric and adult populations. Most commonly, it is instituted in an emergency or urgent situation after failure of other treatment modalities. The technology is available in few tertiary level hospitals in Kathmandu. The aim of the review is to share the lifesaving technological interventions carried out in health care settings. Nurses with specialized training are required with ratio of 1:1 or 1:2 for quality vigilant care.

Keywords: Extracorporeal membrane, Oxygenation, Extracorporeal life support

INTRODUCTION

Extracorporeal membrane oxygenation (ECMO) is a device that provides cardiac and/or respiratory support to patients with severely impaired heart and lung function for days to weeks (Trinsey, 2017; Squiers, Lima, & DiMaio, 2016). ECMO has rapidly developed and is widely used new approach for the intensive care management of acute cardiac and/or respiratory failure in adult patients including pediatrics after repair of congenital heart disease (Itagaki et al; 2014). The objective of this review is to share the new technology for life shaving to those who are critically ill. This technology is beneficial when no other form of treatment has been or is likely to be successful (Banfi et al; 2016).

Results from various clinical trials, and improvements in ECMO technology, it has been motivated its increased use in adults (Squiers et al; 2016). Although ECMO treatment procedure is in the initial phase in Nepal, many hospitals including Manmohan cardiac Center, Sahid Gangalal Heart Center, Nepal Mediciti Hospital are providing ECMO services both to adults and pediatric clients.

Even though ECMO is not a disease treatment, it provides additional time to allow for recovery from existing lung and/or cardiac disease (Yeh et al; 2018). It has revolutionized treatment of severe isolated or combined failure of lung and heart (Napp et al; 2016). It is a simplified form of cardiopulmonary bypass that is used as a bridge to organ recovery, transplantation, or further mechanical circulatory support such as a ventricular assist device (Trinsey, 2017; Napp et al; 2016). Depending on its circuit configuration, ECMO can be used to provide oxygenation, carbon dioxide removal, and/or perfusion support for days to weeks (Makdisi & Wang, 2015).For this, blood is drained from the vascular system, circulated outside the body by a mechanical pump, and then re-infused into the circulation (Lindholm, 2018).

ECMO therapy is often associated with poor outcomes and survival rates; however, in recent years, improved technology and patient management have shown that it is beneficial (Yeh et al; 2018). In every case it is important to consider that ECMO requires a multidisciplinary and experienced team to limit the potential hazards of initiation, maintenance and weaning of ECMO (Makdisi & Wang, 2015; Napp et al; 2016). This article will further discuss types, indications, complications of ECMO on clinical outcomes and major nursing responsibilities.

TYPES AND INDICATIONS

Veno-arterial ECMO (VA ECMO): It provides complete cardio respiratory support by extracting blood from the right atrium and return it to the arterial system, therefore it bypass the heart and lungs (Hayeset al; 2013). It functions as a parallel circuit to the patient's heart and lung which perform the analogous functions in all humans (Jayaraman et al; 2017). It primarily provides hemodynamic support in case of cardiogenic shock, while the effect on oxygenation depends on arterial and venous cannulation sites, the patient's cardiac output and respiratory function (Napp et al; 2016). This is indicated in post-cardiotomy, post-heart transplant and in severe cardiac failure due to almost any other cause (e.g. cardiomyopathy, myocarditis, acute coronary syndrome with cardiogenic shock) {Makdisi & Wang, 2015}.

Veno-Venous ECMO (VV ECMO): The VV ECMO circuit drains venous blood then oxygenated and pump back into the same venous compartment (Lindholm, 2018). Here, blood is percutaneous drained via a cannula from the right atrium, or superior vena cava and inferior vena cava, and oxygenated and decarboxylated in a oxygenator device and returned via a second cannula to the right atrium. By this way, pre- oxygenated blood enters the pulmonary circuit and provides systemic oxygenation (Napp et al; 2016). The main indications for VV ECMO are a reversible respiratory failure (Rupprecht et al; 2015)including acute respiratory distress syndrome (ARDS) either due to broncho-pulmonary aspiration, bacterial, viral or atypical pneumonia, barotraumas or acute or chronic interstitial pneumonitis (Banfi et al; 2016).

Characteristically, VA ECMO is used for cardiac or combined cardiopulmonary failure, and VV ECMO is used for respiratory failure (Hayes et al; 2013). The major difference between VA and VV ECMO circuits is the types of cannulae and location of their insertion (Squiers et al; 2016).

The proper placement of one or two cannula is a prerequisite for ECMO therapy. Even if there is no defined technical gold standard for cannula placement, perfect cannulation usually means safe puncture of the correct vessel, insertion of the cannula without vessel laceration and adequate cannula fixation under ultrasonic guidance (Rupprecht, 2015). Typically, for average adults, the arterial (outflow) cannula is a short 15–20 French (Fr) catheter placed in the femoral artery with the tip in the common iliac artery and the venous (inflow) cannula is at least 21Fr (Rupprecht, 2015; Jayaraman et al; 2017).

COMPLICATIONS OF ECMO ON CLINICAL OUTCOMES

Although ECMO can improve survival of patients with advanced heart and respiratory diseases, there is significant associated morbidity with performance of this intervention (Cheng et al; 2014). Complications can arise from patient factors or malfunctions of ECMO circuit components as mentioned in reports(Mosier et al; 2015, Aubron et al; 2013; and Cheng et al; 2014). Thus, appropriate patient selection is critical for successful ECMO outcomes.

Fig: The ECMO system

Patient Factor	ECMO circuit Factor
Hemorrhage (30–40%), stroke, thrombosis, and infection (31%) related to anti-coagulation therapy, and indwelling lines/tubes. .	Gas embolism, Massive blood loss secondary to tubing ruptures or disconnections.
Hemolysis, pulmonary edema, neurologic complications and long-term neuro-cognitive abnormalities (50%), and lower extremity ischemia from occlusion of the arterial flow with placement of the arterial cannula.	Blood clots, loss of circuit flow and primary failure of circuit components (Squiers et al; 2016).
Long-term complications include neurologic injury and neuro-cognitive abnormalities (50%) (Aubron et al; 2013; Cheng et al; 2014; Mosier et al; 2015)	

NURSES' MAJOR RESPONSIBILITIES

ECMO is a complex treatment that requires diligent nursing care around the clock. A recent expert consensus suggests nurses-to-EMCO patient ratios should be at least1:1 or 1:2 to deliver safe and quality patient care (Botsch et al; 2019). Critical care nurses with the knowledge and ability to identify complications of ECMO can potentially reduce morbidity and mortality in these high-acuity patients (Bergeron & Holifield, 2020). Close collaboration between care providers is crucial, particularly between the nurses managing hemodynamic medication infusions and the ECMO specialist managing the pump. Nurses provide extensive, holistic care for ICU patients and their families, which require additional specialized training. Major nursing care should include monitoring of the ECMO circuits, assessment for erythema, circulation, infection and dressing integrity in the cannula insertion sites, skin care, care of pressure areas, and supporting in early physical rehabilitation and mobility, detection and prevention of systemic complications related to ECMO (Botsch et al; 2019).

SUMMARY

Extracorporeal membrane oxygenation provides support for patients with respiratory, cardiac, or combined cardiopulmonary failure. It is the treatment of choice for patients with respiratory or cardiac failure refractory to optimal mechanical ventilation and conventional medical treatments. Special consideration should be given to clients with

regard to anatomy, physiology, cannulation, and circuit management. Properly trained staffs team in ECMO management is a crucial determinant of survival for patients. Nevertheless, ECMO is an invasive life support system, with substantial risk of adverse events like bleeding, vascular complications, thromboembolic events and infections.

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Review Article

An Overview of Cerebral Palsy in Children

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ABSTRACT

Cerebral palsy is one of the leading disorders of neurological impairment in childhood, caused by damage to developing brain from congenital malformation, injuries and anoxia at any time during fetal life, birth and early year of child's life. Most of the affected children will develop symptoms in infancy or early childhood with motor impairments such as spasticity, muscle weakness and ataxia. As a result, this disorder influences not only the child's everyday functioning but also the activities of the whole family. However, proper and early management of this disorder can improve the quality of life of the child to a great extent. Health professionals including nurses can use this information in early identification, prevention and management through rehabilitation services to the child, parent and family member. The aim of this review is to highlight the cerebral palsy in childhood and several evidences was reviewed from different sources.

Keywords: Brain anoxia, Cerebral palsy, Congenital malformation

INTRODUCTION

Cerebral palsy (CP) is a common motor disability among the children. The incidence is 1.5 to 2.5 per 1,000 live births (Arneson et al; 2009) and the rate is increasing trend particularly because of the increased survival rate of premature infants (Nettina, 2012). The brain damage that leads to CP can occur before birth, during birth and early childhood while the brain is still developing. The prenatal cause is unknown in 70% to 80% of the cases (Krigger, 2006). Some of the known causes are infants exposed to maternal and perinatal infections prematurity and very low birth weight (Wilson & Hockenbery, 2011).

CP causes physical disability of motor functions which are often accompanied by disturbances of sensation, cognition, communication, perception, behavior and/or by seizure disorders (Smithers-Sheedy et al; 2004). Most children develop symptoms in infancy or early childhood (Kyle, 2008). It is a lifelong condition and one of the most common causes of physical disability in children (Rosenbaum, 2003).Children with severe impairment of mobility and feeding skills have a greater risk of dying during childhood. Approximately 75% have mental retardation or learning disabilities (Liptak & Accardo, 2004).

CLASSIFICATION

Dyskinetic (athetoid) palsy characterized by an injury in the basal ganglia and slow uncontrolled involuntary movement involving all extremities.

Spastic CP is most common type, where cortex is the affected area characterized by increased deep tendon reflexes, flexion and hypertonia.

Ataxic CP, the affected area of the brain is cerebellum, characterized by a loss of co-ordination and equilibrium.

Mixed type, both spastic and dyskinetic signs are present with usually the total body involvement.

Several epidemiology and Etiologies revealed that infection during pregnancy such as chorioamnioniits, maternal sepsis, temperature >38^0 C have been associated with a significant increase in the risk of CP in normal birth weight infants. About two-fifth (39.5%) mothers have reported an infection during the pregnancy and 19% having evidence of urinary tract infection (Behrman, 2012). Many of the neurological conditions associated with preterm delivery and who have an increased risk of infection with various co-morbidities and often several disabilities (Hafstrom et. Al; 2018). One recent study

found that prematurity, when combined with low birth weight and preeclampsia with the mother, is 20-fold increased risk of cerebral palsy in the child (Bass, 2019). Fewer than 10% of children with CP had evidence of intrapartum asphyxia (Behrman, 2012).

CASE IDENTIFICATION

Cerebral Palsy can be evident from motor disability in the first 12-18 months depending on the severity with delayed in meeting developmental milestone including visual defects such as strabismus, nystagmus, hearing loss, language delay and seizures. Feeding may be difficult because of oral motor involvement (Ball & Binder, 2009).Additional tests such as magnetic resonance imaging (MRI) and electroencephalogram (EEG) may be done to look for abnormalities in the brain. There is very little data relating to cerebral palsy (CP) in Nepal. One of the retrospective study found that majority of the cases (56 %) were diagnosed within the age of 4 years (Thapa, 2016).

PREVENTIVE MEASURES

Pre-conception: Potential mothers should be educated to be as healthy, treat any infections promptly and health conditions should be kept in control. Vaccination against chickenpox and rubella should be carried out which harms a developing baby.

During Pregnancy and birth: Early and regular antenatal checkup, hand hygiene, screening of blood type or Rh incompatibility and its treatment with Rh immune globulin prevents severe jaundice and kernicterus. Mother should be instructed to take right amount of food, release stress, control non-communicable diseases (DM, smoking etc) to reduce the risk for preterm delivery and prolonged labor and birth asphyxia should be manage promptly.

After Childbirth: Mother should be taught healthy baby care; jaundice should be treated promptly to prevent from severe jaundice and kernicterus. Child should be vaccinated against meningitis and encephalitis. Later on, parents should be taught about accident and injury prevention such as not to leave the young child unsupervised, not to hit, throw, shake, or hurt the child as these actions may injure the child's brain.

Further Management such as physical, occupational therapy supportive treatments, medications and surgery can help the child to improve their disability and better to manage with speech therapy (National Institute of Neurological Disorder and Stroke. The holistic approach is required to achieve fullest possible developmental age (NINDS 2015).

CONCLUSION

The review concludes that Cerebral palsy is the most common motor disability of children which is caused by prenatal, perinatal and postnatal factors. Commonest risk factors are prematurity and low birth weight. Early diagnosis and timely initiation of appropriate management can reduce the incidence of neurological, psychosocial and emotional handicaps of the child.

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Carica Papaya Leaf Extracts to Accelerate Platelet Count in Dengue Fever

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ABSTRACT

Dengue is the most extensively emerging mosquito-borne viral disease, caused by an arbovirus through the bite of an infected *Aedesaegypti* mosquito found in tropical and sub-tropical regions around the world. Expansion of its endemics in more than 100 countries towards new territories in the hilly regions even in Nepal is a serious concern. The symptoms include mild to severe form characterized by high fever, rash, severe headache, severe joint & muscular pain, nausea, vomiting, and eye pain. It is usually a self-limited illness, and no specific antibiotic or antiviral treatment seems indicated only require to provide supportive care. The Carica Papaya Leaf Extracts (CPLE) has proposed to have beneficial in improving platelet counts and minimize symptoms as evidence by several studies.

Keywords: Carica Papaya, Dengue, Mosquito borne, Viral disease

INTRODUCTION

Dengue is crucial vector-borne viral human disease of 21st Century, across the tropical and subtropical region or every corner of world (Smith & Bronze, 2019). Approximately 100 billion dengue cases are reported worldwide and more than 390 million humans with chance of infection annually (Ganeshkumar et.al; 2018). WHO reported that more than 3.2 million cases in 2015, among them 2.35 million the American alone.

The incubation period ranges from 3 to 14 days and signs and symptoms appears with high fever, bradycardia, low blood pressure headache , cutaneous rashes, retro-orbital pain and other vague symptoms of hemorrhagic and shock syndrome. This requires urgent treatment (Ahmad, AsifAziz, Aftab, Ullah, Irfan Ahmad & Mustan, 2017). It has been mentioned that there is 3 phases of febrile, critical and recovery phases which should be managed carefully and prognosis has excellent results.

Role of Carica Papaya Leaf extract (CPLE) for Improving Fallen Platelet Count: Some Evidences

This viral disease is self-limiting in nature hence, mainstay of treatment &management has been focused on symptomatic and intensive supportive care. Besides, it has been seen that carica papaya leaf extract has been successfully used for the dengue infection with hemorrhagic manifestations in different parts of South Asia such as India, Pakistan, Indonesia, Sri Lanka and Malaysia. While reviewing the literature it was found that the most of the study conducted in modern allopathic government district and referral level hospitals in Asian countries.

Carica papaya is commonly called as paw-paw and it belongs to the family caricaceae, employed as a folk medicine, widely cultivated in tropical and subtropical countries; is a medicinal plant, and leaf extract has been used as an effective, safe, cheap folk or traditional remedy specially to combat Dengue (Dharmarathna et al., 2013). It has been seen that CPLE has given at any stage of the disease but for best results it should be given from the first day of fever until have fully recovered from the illness and advised not to stop the treatment halfway (BMJ Group, 2015). It has the effect of thrombocytopenia associated conditions and reported that it has membrane stabilizing properties and protect blood cells against stress induced destruction which could prevent platelet lysis due to the presence of flavonoids and other phenolic compounds in the papaya leaves (Ranasinghe, Ranasinghe, Abeysekera, Premakumara, Perera, Gurugama, et al; 2012).

The administration of this leaf extract seen as a form of juice, syrup, capsule or tablet to hasten recovery in different doses and linked with clinical improvement and shorter duration of hospital stay (Rajapakse et al; 2019).

A case control study in India revealed that CPLE has increase the expression of Arachidonate 12-lipoxygenase (ALOX 12) and platelet-activating factor receptor gene in study group as compared to the control group (Venugopal, Suresh & Halesha, 2018).Another multi-centric, double blind, placebo controlled, randomized, prospective study among 300 patients also have the significantly increase (p< 0.01) the platelet count with fewer side effects & good tolerability, (Kasture, Nagabhushan & Kumar, 2016).A longitudinal study in India among 200 patients also showed that CPLE significantly accelerates the increase in platelet count in study group (p=0.002) and reduces hospital stay (Vijeth, Kauser, Mangasuli, Kumar, Suba Sree & Varghes, 2018). It has been equally beneficial among the pediatric group as well with increased mean platelet counts (Srikanth, Reddy, Biradar, Shamanna, Mariguddi & Krishna Kumar, 2019)

In Malaysia, an open labeled randomized controlled trial among 229 patients ,with 30 ml of fresh juice (50 grams CP leafs) once daily, 15 minute after breakfast for 3 consecutive days showed significant increase in mean platelet count in intervention group (P<0.001) compared to control group (Subenthiran et al; 2013). In Pakistan a medical student , was given 150 ml of papaya leaf extract once daily for 5 consecutive days has increased platelet count (Siddique et al; 2014). The evidences from Indonesia and Sri Lanka have also the similar findings, but there was no any published research article found in Nepal.

CONCLUSION

Dengue fever is characterized by vague signs and symptoms of high grade fever, including risk of hemorrhage and shock. Thrombocytopenia is found as a major complication where carica papaya leaf extraction has shown an important role in acceleratione the platelet count and reduce the duration of hospital stay as evidence of several studies.

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Review Article

Obstetric Cholestasis: An Overview

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ABSTRACT

Obstetric cholestasis is a multifactorial condition of pregnancy characterized by intense pruritus in the absence of a skin rash with abnormal liver function tests which is resolved after birth. It occurs during third trimester of pregnancy and incidence varies in different countries. Diagnostic findings usually have raised concentrations of bile acids greater than 10 micromoles /L and 40 micromoles/L have been associated with increased fetal risk. UDCA (Ursodeoxycholic acid) are beneficial for symptomatic relief of pruritus and decrease in abnormal liver function test and bile acid. In addition, detailed study of the consequences of maternal cholestasis on both placental transport function and fetal hepatic transport capacity may help to prevent fetal distress and Intra Uterine fetal Death in the clinical setting. Adverse perinatal outcome is a major concern with potential fetal risks, which may include spontaneous preterm birth, iatrogenic preterm birth and fetal death. The objective of the review is to explore and share about Obstetric cholestasis and its management.

Keywords: Fetal risk, Obstetric cholestasis, Pruritus

INTRODUCTION

Obstetric Cholestasis (OC) also referred to as intrahepatic cholestasis of pregnancy, is a liver disorder where there is liver dysfunction associated with pruritus (Shrestha & Panta, 2017).It usually occurs with a complex etiology including genetic, environmental and endocrinological factors (South Australian Perinatal Practice guidelines, 2016). It classically presents in the third trimester with pruritus typically of palms and soles with raised serum bile acid level. The symptom and biochemical abnormalities resolve rapidly after delivery but may recur in subsequent pregnancies and with the use of hormonal contraception. It has been consistently associated with higher incidence of adverse pregnancy outcomes including spontaneous and iatrogenic preterm delivery, non-reassuring fetal heart rate, meconium stain in amniotic fluid and still birth (Williamson & Geenes, 2014). A study results from a large Swedish cohort showed that pregnancies in which the maternal serum bile acid concentration was of 40 µmol/L or more were more likely to be complicated.

INCIDENCE AND ETILOGY

It varies in different countries and is very low in Europe (0.1 to 1.5%) and Scandinavian countries, whereas in Chile and china are high (14%)). It is 1.2-1.5% in India and Pakistan (Pokhrel, Ghimire, Jha, Chhetri & Kumar, 2016). Usually 1 pregnancy in 1,000 are affected by cholestasis during pregnancy (American Pregnancy Association, 2017).

The review of several study findings found that the exact etiology is unknown and other factors associated with the genetic positive family history in 33-50% of patients with an autosomal dominant inheritance pattern and reproductive hormones of an estrogen. The levels of estrogen are highest in the third trimester and this is the most common time of presentation. The other studies also revealed that several environmental factors such as winter months and deficiency of dietary selenium levels, which acts as a cofactor of several enzymes in the oxidative metabolism in the liver are responsible (Rigby & Ramus, 2018).

Fetal effect

The increased levels of maternal serum bile acids intoxicate the intra-uterine fetal environment. Of amniotic fluid, umbilical cord and meconium resulting fetal arrhythmia due to reduced execratory function of bile salts from placenta which ultimately leads to fetal distress, premature labor and still birth. (Pradhan, & Shao, 2013).

DIAGNOSIS AND MANAGEMENT

Review from different sources revealed that the classic symptom includes severe pruritus develops on the soles of the feet and palms of the hands and spreads to the trunk and limbs. It may be so intense that lead to insomnia and excoriations may progressively worsen up until birth. Others signs has been mentioned as dark urine, pale stools. Anorexia, steatorrhoea and, rarely jaundice (South Australian Practice guidelines, 2016).

Diagnosis of cholestasis in pregnancy is confirmed by clinical features and serum level of bile acids greater than 10μmol/L (Glantz, Reilly, & Benthin, 2008). The Liver Function Tests (LFT), Amino transferase (ALT, AST) (Joshi, James, Qugalia, Westbrook, & Heneghan, 2010).

The management are focused on diagnosis, fetal surveillance, drug therapy and delivery planning (Pokhrel et al 2016).

Antenatal Management

Frequency of fetal surveillance with ultrasound and CTG monitoring are the decision of the obstetric team.

Maternal pruritus is managed with use of topical emollients e.g. calamine lotion which provide temporary relief of itching. The woman should advice to wear cool loose cotton clothing keep skin moisturized, cool baths/showers for comfort. She should encourage for low fat diet, and increase water intake. Anti-histamines at night are beneficial for their sedative effect.

Vitamin K supplementation-Obstetric cholestasis can lead to a reduction of circulating enerohepatic bile acids causing reduced absorption of fat-soluble vitamins (RCOG, 2006).

Ursodeoxycholic acid (UDCA) - improves pruritus and liver function. (Serum bilirubin, Aminotransferase, TBA, and cholic acid). It activates transporter protein into the canalicular membrane and improves bile salt export from the liver. It restores impairment of maternal-placental bile acid transport across the placental trophoblasts (Pradhan & Shao, 2013).

Nutritional supplementation with multivitamin is advised for Steatorrhea and low fat diet for malabsorption.

Labor, birth and post natal management

Timing of birth is in between 37 - 38 weeks of gestation, or earlier if there is risk for maternal morbidity or fetal compromise detected on admission, arrange a blood group, full blood picture, LFTs and coagulation profile. Monitor the fetal heart rate continuously with a CTG and anticipate the risk of meconium liquor hence a pediatrician at delivery as necessary. Administration of corticosteroids if induction of labor is anticipated prior to 36+6 weeks gestation (Mays, 2010).There is chance of 1.5 fold increase in cesarean delivery and 8 fold increase in duration of hospital stay for more than 10 days, 3 fold increase in induction of labor (Turunen, Sumanen, Haukilahti, Kirkinen, Mattila, 2010).

Postnatal mother is counsel prior to discharge about risk of reoccurrence in a subsequent pregnancy (40-60%). Reassure that pruritus normally resolves within 48 hours of giving birth, however in some women it may last 4-8 weeks. The combined oral contraceptive pill in postpartum should be avoided (Barr, 2015).

CONCLUSION

Obstetric cholestasis seems fairly common among pregnant women. It was found to be responsible for a large number of perinatal and neonatal deaths especially after 36 weeks of gestation. Close fetal monitoring and timely intervention decreases perinatal mortality significantly.

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Review Article

Emergency Nursing

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ABSTRACT

Emergency nursing is a special field or branch of nursing practice where nurses manage patients in their acute phase of illness or injury. Emergency nurses are trained to be adept at discerning life-threatening problems, prioritize the urgency of care, rapidly and effectively carry out resuscitative measures and provide other treatments. The emergency nurses often have to work under critical and stressful situations. It requires specialized knowledge and training for nurses and effective department management so that quality of care in emergency department is maintained. The objective of this article is to analyze the concept of emergency nursing and the common issues in providing emergency nursing care.

Keywords: Emergency, Nursing

INTRODUCTION

Emergency nursing is a nursing specialty in which nurses care for patients in the emergency or critical phase of their illness or injury. While this is common to many nursing specialties, the key difference is that an emergency nurse is skilled at dealing with people in the phase when a diagnosis has not yet been made and the cause of the problem is not known. It is a specialty area of the nursing profession like no other; nurses must possess both general and specific knowledge about healthcare to provide quality care for people of all ages. They must be ready to treat or care for a wide variety of injuries and illnesses, ranging from a simple laceration to a heart attack. (Trimble, 2017)

In an emergency, every second is critical because recovery of the patient depends on the rapid assessment and proper treatment. Emergency nurses are trained to be adept at discerning life-threatening problems, prioritize the urgency of care, rapidly and effectively carry out resuscitative measures and provide other treatments.

The provision of immediate nursing care is to help people who have defined their problem as an emergency or where nursing intervention may prevent an emergency arising. So the emergency nurse should accept without warning any person requiring health care with undifferentiated and undiagnosed problems originating from social, psychological, physical, spiritual or cultural factors.

The specialized body of knowledge and skills inherent in emergency nursing practice provides a unique opportunity for the emergency nurse to serve as a focal point at the intersections of primary, secondary and tertiary care on the disease-wellness continuum. This collaborative role enables the emergency nurse to affect the process and outcome of concerns such as bioethical issues, humanism, biopsychosocial and spiritual needs of clients, alternative care modalities, etc. taking the nurse's role as patient/client advocate.

The emergency nurse plays a crucial role in the identification and care of patients with any emergencies such as medical, surgical, injury, psychological (Wolf et.al. 2012).

COMPONENTS

Component of emergency nursing are triage system, primary, secondary and ongoing assessment, prioritization, management, and evaluation, multidisciplinary coordinated and cooperative teamwork, trauma and disaster management etc. Emergency nurses must possess specialized knowledge, skills, and training for providing competent, quality service because emergency management ranges from minimal interventions to

advance life-saving interventions in an unpredictable situations.

SCOPE OF EMERGENCY NURSING

In a variety of emergency settings, the emergency nurse should involve in the assessment, analysis, nursing diagnosis, outcome identification, planning, implementation of interventions, and evaluation of Patient's responses which is perceived as actual or potential, sudden or urgent, physical or psychosocial problems that are primarily episodic or acute (*Scope Practice Nursing*.n.d.).

According to Emergency Nurses Association (ENA), the scope of emergency nursing practice involves the assessment, analysis, nursing diagnosis, outcome identification, planning, implementation of interventions, and evaluation of human response to perceived, actual or potential, sudden or urgent, physical or psychosocial problems that are primarily episodic or acute, and which occur in a variety of settings.

The scope is bound both externally and internally with sufficient flexibility and resilience to change in response to societal needs and demands. The external boundaries are legislation/regulations/ Nursing Practice act/health act, societal demands, economic climate and health care delivery trends, and resources. The internal boundaries include those forces which fall within the practice of professional nursing such as institutional and departmental policies and procedures, Standards of Emergency Nursing Practice, Code of Ethics for Emergency Nurses, Emergency Nursing Core Curriculum (*Scope Practice Nursing.* n.d.)Most hospitals in Nepal have adopted a multi-specialist approach, where emergency room physicians are primarily general practitioners/family physicians or house officers.

According to the National Emergency Nurses Association (NENA) Canada, the scope of emergency nursing includes:

* Triage and prioritization
* Stabilization and resuscitation
* Assessment, nursing diagnosis, planning, and implementation of interventions where limited data may be available, followed by evaluation of patient response
* Provisions of care in uncontrolled and/or unpredictable situations
* Crisis interventions to meet the needs of unique patient situations
* Emergency operations preparedness
* Education of the patient and community to facilitate attainment of an optimal level of wellness
* Wellness initiatives directed to patient and community, particularly related to disease and injury prevention
* Research
* Management
* Education and mentorship
* Advanced practice
* Forensic nursing

(*Standards-of-ED-Nursing-Practice-2018.* n.d.)

ISSUES IN EMERGENCY NURSING CARE

As mention before emergency nursing is practiced in a unique environment; where the allocation of resources, and the need for emergent care as perceived by many patients arriving in an unscheduled manner, potentially creating a stressful, chaotic environment. So numerous multifaceted issues are emerged frequently such as:

* Overcrowding can lead to compromised service quality
* Burnout syndrome among nurses resulting from staff shortage
* Lack of communication due to lack of time, resources and training
* Shortage of resources due to an overflow of patients
* High exposure to traumatic injuries/risks/ infections
* Workplace violence and patient safety
* Challenges to maintain privacy and confidentiality of patients

Some studies of the issues in emergency nursing are as follows:

Rigobello et al (2017). conducted a study to assess the patient safety climate from the perspective of healthcare professionals working in the emergency department of a hospital in Brazil. Most of the participants were female (57.6%) and had worked in the emergency department for more than 10 years (56.8%). Sixty-two participants (49.6%) were nursing professionals. The participants demonstrated satisfaction with their jobs and dissatisfaction with the actions of management with regard to safety issues. Participants' perceptions about the patient safety climate were found to be negative. The study concluded that the knowledge of professionals' perceptions of patient safety climate in the context of emergency care helps with assessments of the safety culture, contributes to the improvement of healthcare, reduces adverse events, and can focus efforts to improve the quality of care provided to patients.

Another qualitative study about challenges experienced by nurses in the emergency department in selected hospitals in Ghana (Atakro et al. 2016) mentioned that, nurses in emergency departments are affected by many challenges such as growing patient population, financial pressures, physical violence, verbal abuse, operational inefficiencies, overcrowding, and work overload. The team has identified five thematic challenges such as lack of preparation for emergency departments, verbal abuse from patient's relatives, lack of resources, stressful and time-consuming nature , and overcrowding. The study concluded that formal education of nurses in the advanced role of emergency care, adequate supply of resources, increased hospital management support, and motivations for nurses working in emergency departments are necessary to improve the practice of emergency care.

Similar study findings from Brazil on challenges for the management in terms of nurses perspective has been found that there was of care (Santos et al., 2013). overcrowding, compromised quality of care and utilization of leadership as a management tool. The suggestions mentioned to overcome these were: reorganization of the health system to focus on emergencies, changes in the flow of patient care, and implementation of training on nursing management. The study concluded that such challenges and strategies represented a boost to the development of new practices through collaborative and coordinated work with the emergency care network.

MANAGEMENT

Management of the issues in emergency department can be done by increasing administrative commitment, revising staffing guidelines, implementing integrated information systems, promoting interdisciplinary collaboration etc. There should be open communication, safer work environment, and uniform implementation of incentive programs. Professional accomplishments should be supported and recognized. There should be a focus on culturally sensitive empathetic care. The health system organization should consider emergency care, making necessary changes in the flow of patient care and implementation of training on nursing management

CONCLUSION

Emergency nursing is a special field of nursing practice which is challenging requiring specialized education, skills and training. Emergency nurses need to be able to work in critical situations, doing rapid assessment, making decisions with incomplete information and giving quality service in stressful situations. However, there are a lot of issues in emergency care: overflow of patients, overcrowding and lack of resources, stressful working environment, burnout among nurses and lowered quality of service. This is a common scenario in emergency departments around the world. To ensure good patient service, there should be administrative commitment to provide emergency department with adequate resources and the nurses with relevant training and guidance.

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GUIDELINES FOR MANUSCRIPT PREPARATION

Introduction

Maharajgunj Nursing Campus was established in 1956 AD with Certificate Program in Nursing and came under Institute of Medicine, Tribhuvan University in 1972 AD. Till now the college has been running different levels of nursing program from Bachelor level to PhD in Nursing.

Journal of Nursing Education of Nepal (JONEN) is a peer reviewed scientific nursing journal and publishes papers related to Nursing and health sciences. It was started in 1998 A.D. (2055 Baisakh B.S.) and publishes annually.

Scope of the Journal

The journal (JONEN) publishes original articles, case reports ,review articles in the field of nursing and health sciences related to different aspects like medical education, public health, and health policy, health care management, including ethical and social health issues. The journal prefers to good quality research papers with clinical oriented studies which provide immediate impact to the health and policy.

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- The articles will be accepted for publication only after declaration by the author/s.

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- The opinions expressed in the articles are the author's own and do not necessarily reflect the views of the publisher or the editorial board.

- Only one article of an author is published in one volume regardless the position of the author (principal or co-author).

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- Non response or delayed response to proof copy may delay the publication of the same article or may even get rejected from the journal.

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1. Manuscripts must be written in clear and concise English and must be submitted to the 'Editorial Office' of **JONEN**.

2. Digital submission in a pen drive or *email* attachment is mandatory according to the guidelines provided.

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Manuscript Preparation

1. The manuscript must be typed double-spaced in A4 size white paper with Times New Roman Font, size of 12 points.

2. Margins should be a minimum of 25 mm in all sides.

3. Page number should be inserted at bottom center and the pages should be numbered consecutively, beginning with the title page.

4. Each section of the manuscript should commence in the following sequence: title page, structured abstract, keywords, introduction, methods, results, tables and graphs (not more than 6) with caption list, discussion, conclusion, acknowledgement if any and references.

5. **For case report**: Abstract, Keywords, Introduction, Case Report, Discussion, References, Tables and figure legends.

6. Particular attention should be taken to ensure the manuscript adheres to the style of the journal in all respects.

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3. The name by which each contributor is known (First name, Middle name and Last name), with his or her highest academic degree(s) and institutional affiliation.

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2. Review Article: Up to 3000 words excluding references (up to >50 but <100) and abstract (250).

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4. Viewpoint: These articles are personal views and allow you to express your own point of view on any issues relevant to health. Up to 800 words excluding reference (up to 5-8).

References

1. References should be typed single spaced in a separate section at the end of the manuscript and in hanging style with alphabetic order.

2. Follow APA style in citation.

Language and Grammar

1. Uniformity in the language

2. Numerals from 1 to 9 spelt out

3. Numerals at the beginning of the sentence spelt out

4. Use abbreviated form only after using its full form when it first appears in the text except abstract.

Tables and Figures

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7. Figures necessary and of good quality (Black and white)

8. Table and figure numbers in Arabic letters

CHECKLIST (Please make sure that you have addressed all the points mentioned in the checklist)

☐ Institutional Review Committee (IRC) approval letter from the affiliated institute

☐ JONEN Authorship/Declaration letter From (Completely filled). Declaration page must be scanned or send with manuscript

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