

KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS THE (WHO) SAFE CHILDBIRTH CHECKLIST AMONG HEALTH CARE WORKERS AT MAIN PUBLIC MCHs IN GABILEY, SOMALILAND

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ABSTRACT

The WHO Safe Childbirth Checklist is a tool intended to improve the quality of care for women and babies at the time of childbirth. The Checklist includes organized list of evidence-based essential birth practices targeting major causes of maternal deaths, intrapartum-related stillbirths and neonatal deaths that occur in facilities around the world. Maternal mortality in Somaliland is extensive as high as 732/100,000 live birth. The current knowledge, attitude and practice (KAP) of health care workers about the WHO safe childbirth checklist is unknown. Therefore this study assessed the level of (KAP) towards WHO safe childbirth checklist among health workers at 4 main public MCHs in Gabiley, Somaliland.

Methods

Institution based cross-sectional study was conducted among 48 health workers at 4 public MCHs in gabiley city. The data was collected using structured self administered questionnaire. Data was analyzed by SPSS version 20 using descriptive statistics

Result

The knowledge mean score among health workers about WHO safe childbirth checklist was $1.4 \pm .75$ SD which is below the cut-off-point of 4. Attitude was measured using 5 questions

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and the mean score was $2.96 \pm .73$ SD which is below the average cut-off point of 3. Similarly, the mean score of practice was poor $1.02 \pm .24$ SD. The practice scale was consisting of 5 questions with a cut-off point of 3.

The present study revealed poor level of KAP among health workers at the 4 main public MCHs in gabiley city, Somaliland. Approximately 76.6%, 60% and 95% of the health workers had a poor knowledge, negative attitude and poor practice towards the WHO safe childbirth checklist.

Keywords: *Knowledge, Attitude, practice, WHO safe childbirth checklist, health workers*

1. INTRODUCTION

The WHO Safe Childbirth Checklist is a tool intended to improve the quality of care for women and babies at the time of childbirth. The Checklist is an organized list of evidence-based essential birth practices targeting major causes of maternal deaths, intrapartum-related stillbirths and neonatal deaths that occur in facilities around the world. An implementation guide has been developed alongside this Checklist to help facilities successfully implement it (1,2).

This Checklist addresses the major causes of maternal death (hemorrhage, infection, obstructed labour and hypertensive disorders), intrapartum-related stillbirths (inadequate intrapartum care), and neonatal deaths (birth asphyxia, infection and complications related to prematurity (3).

Every day, more than 800 young women and 7,000 babies die around the time of childbirth worldwide, while thousands more suffer life-threatening and lifelong complications. Our work in Better Birth is focused on improving facility-based care during the period of highest risk of death and complications for women and babies – the 48 hours around childbirth. The Better Birth Program uses the World Health Organization's (WHO) Safe Childbirth Checklist, as powerful tool that supports birth attendants to consistently deliver essential childbirth practices proven to address the biggest killers of women and babies.(4)

Globally more than 130 million births occur each year, an estimated 303,000 result in the mother's death, 2.6 million in stillbirth, and another 2.7 million in a newborn death within the first 28 days of birth. The majority of these deaths occur in low-resource settings and most could be prevented with the prompt use of the standard WHO safe motherhood checklist by all health professions working on delivery services. ⁽⁵⁾

According to Somaliland Deaths within the first month of life are estimated to represent 46% of under-five deaths. The region of Somaliland is estimated to have a NMR of 42 per 1000 live births as reported by the United Nations Children's Fund's Multiple Indicator Cluster Survey (MICS) of 2011. The majority of these deaths are related to causes that could be prevented ⁽⁶⁾. Beside that Somaliland has also one of the worst maternal mortality ratios in the world, estimated to be between 1,100 and 1,400 per 100,000 live births," according to the UN Children's Fund (UNICEF) field office in Hargeisa, capital of Somaliland. ⁽⁷⁾

The high rate of maternal mortality and morbidity, especially in developing countries calls for international concern. Although the ongoing Sustainable Development Goals (SDGs) has included its prevention as one of the major indicators for measuring global development by the year 2030; success can only ensue if the challenges faced by low-resource settings including Somaliland are recognized and tackled. ^(8,9)

It has been recognized that childbirth is a complex but physiological process necessitating sometimes difficult sometimes complicated steps that prevents adverse outcomes for the mother and her newborn child. Health care givers may find it difficult to simply remember all the relevant information and performing all the steps perfectly and in the precise order may become challenging especially in the busy labour ward. The WHO Safe Childbirth Checklist is a simple quality improvement tool that reminds health care workers to deliver high-quality care from when the women are admitted through childbirth until the women and baby are safely discharged home. ⁽¹⁰⁾

A collaborative field-testing exercise to explore implementation and usability of the Checklist in diverse settings around the world was established in 2012. Participants were invited to use the Checklist with the aim of exploring facilitating factors and barriers to effective implementation and use of the Checklist. A total of 134 end-users and 38 implementation teams responded to the surveys from 39 sites across 19 countries. Results from each survey were

presented independently, with the exception of implementation challenges/barriers and suggested modifications to the Checklist which are presented together. End-users were very interested in using the Checklist, with 79% stating they were willing or extremely willing to use it when first introduced to it. Respondents were also asked to indicate how willing they perceived each profession to be. The most resistant profession was thought to be obstetricians/gynecologist. ⁽¹¹⁾

Somaliland is slowly to use the WHO safe childbirth checklist at almost all the delivery services across the country with specific emphasis on the health care facilities found out of the capital city including Gabiley city which is found around 60km west to the capital city Hargeisa. Minding that successful adaptation of the checklist items by health care workers will help keep the women and baby safe as the checklist catalogues are core set of practices that are proven to reduce maternal and newborn harm.

The prompt use and application of the checklist to reduce the already high maternal and neonatal mortality in Somaliland is directly connected with the prior knowledge and attitude of health care workers about the checklist. There is no any previous study on the KAP level of health care workers about the checklist. Therefore this study will assess the knowledge, attitude and practice of the WHO safe childbirth checklist among health care workers at major public MCHs in Gabiley city and results from this study will be helpful for national level planners and decision makers to design effective and appropriate strategies to reduce the high maternal mortality and morbidity in Somaliland.

2. METHODS

2.1: Study area and period

The study was carried out at Gabiley city maternal and child health centers (MCHs). Gabiley is located 58 km west of Hargeisa, the capital of Somaliland. And well known for its agricultural productions. The city has four main public MCHs namely: 18may, new gabiley, wadajir and central MCHs. All this centers will be considered in this study. This study was carried out from January to June 2021

2.2: Study design

Institutional based cross sectional study design was adopted to assess the knowledge, attitude and practice towards WHO safe childbirth checklist among health care providers at four main MCHs in gabiley city.

2.3: Study population

The study population was health care providers including midwives, nurses and traditional birth attendants working on delivery services at the four main MCHs in gabiley city

2.4: Sample size & Sampling technique

This study included all the registered health care providers (n=48), which are directly related to the delivery services of all the four MCHs in gabiley city. Each MCH had a total of 12 health staff assigned for the delivery services which includes nurses, midwives and traditional birth attendants (TBA)..

2.5: Operational definition

- ✚ **Child birth (delivery):** is the ending of pregnancy where one or more babies leave the uterus by passing through the vagina or by Caesarean section.
- ✚ **WHO save childbirth checklist:** is a tool which is intended to improve the quality of care for women and babies at the time of childbirth.
- ✚ **Knowledge:** state of knowledge of health care providers about WHO safe childbirth checklist
 - **Good** - those who respond 5-6 questions correct
 - **Fair** - those who respond 3-4 questions correct
 - **Poor**- those who respond 1-2 questions correct
- ✚ **Attitude:** feeling and perceptions of health care providers about WHO safe childbirth checklist
 - **Good**- those who respond > 3 questions correct
 - **Poor**- those who respond < 3 questions correct

✚ **Practice:** state of practicing or using WHO safe childbirth checklist by health care providers about

- **Good** - those who respond > 3 questions correct
- **Poor** - those who respond < 3 questions correct

2.6: Data collection technique and tools

Data was collected from all the 48 health providers of all the four MCHs using a self administered questionnaire which was designed in a semi structured approach with a mixture of open ended and closed questions. All health providers participating in the study was helped where ever necessary. All data was solely collected by the group members from April 1st to April 30 2021.

2.7: Data processing and analysis

Data was processed and analyzed using SPSS package version 20 after being cleaned and repeatedly checked for errors. Final results were presented as descriptive statistics using tables and charts like pie charts. Similarly the study also applied mean and standard deviation measures to assess the overall knowledge, attitude and practice of WHO safe childbirth checklist among health providers at gabiley city.

2.8: Ethical considerations

Before undertaking research we got permission to proceed from EAU research department. confidentiality was assured for all the respondents and the data provided by them, the investigators of the study kindly invited respondents to participate voluntary, each respondent was given the choice to participate in the study, all respondents were guaranteed that their information will not be shared for anyone and the respondents have the choice to ignore items that they don't wish to respond to.

3. RESULTS AND INTERPRETATION

3.1: Introduction

This chapter is concerned with the analysis of the collected data and also interpretation of the results also the research findings from the data was analyzed and discussed in order to complete this study in effective way. It is necessary to analyze the data collected to answer research questions of the study. As mentioned in the previous chapter, data is interpreted in a descriptive form. Data were collected using tools that measured Questionnaire about the knowledge attitude and practice of WHO safe childbirth checklist among health care workers at public MCHs in gabiley city, Somaliland. This chapter summarizes the analysis, presentation, and interpretation of the findings resulting from this study.

3.2: Socio demographic characteristics of the respondents

The socio-demographic characteristics of the study participants were summarized in table 1. All the study participants were females, the mean age of the study participants was 27.4 ± 4.5 years, majority (52.1%) of health workers participated in the study were between the ages of 25-34 years. Where almost more than half (62.5%) of the study participants were single when it comes to their marital status. A little more than half of the respondents (56%) had an education status of bachelor's degree level where as the remaining 29% and 15% had diploma and certificate level respectively which indicates that majority of health workers in this MCHs had a bachelor's degree. Majority of respondents (89%) participated in this study were nurses in profession where as the remaining 8% and 2% were midwives and trained traditional birth attendants respectively. The study also found that one third of participants (33%) had a 3-4 years experience of working in the maternity departments including delivery service while another 27% had a 1-2 years experience of work indicating that they are fresh health workers with lack of work experience and the remaining 16% and 22% had a good level of experience of 5-6 years and more than 7 years respectively.

Table 1: Socio-Demographic Characteristics of the respondents' Gabiley, Somaliland 2021

Item	Frequency	Percentage (%)
Age		
• 15-24	10	20.8
• 25-34	25	52.1
• 35-44	6	12.5
• 45-54	6	12.5
• >55	1	2.1
Sex		
• Male	0	0
• female	48	100
Marital status		
• Single	15	31.2
• Married	30	62.5
• Divorced	2	4.2
• Widowed	1	2.1
Educational status		
• Diploma	14	29.2
• Degree	27	56.2
• Certificate	7	14.6
Profession		
• Nurse	43	89.6
• Midwife	4	8.3
• TBA	1	2.1
Level of experience		
• 1-2 years	13	27.1
• 3-4 years	16	33.3
• 5-6 years	8	16.7
• >7 years	11	22.9

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3.3: Knowledge of WHO Safe Childbirth Checklist among Health Workers

The finding about the knowledge status of health workers on the WHO safe childbirth checklist is summarized in table 2. The scoring system and cut off level to measure items related to knowledge status was described in the methodology section. In summary the knowledge was assessed in three categories and divided into good, fair and poor knowledge status. The cut point scoring system was giving good knowledge level if the respondent correctly answered 5-6 questions about the knowledge items, respondents who correctly answer 3-4 questions were described as fair knowledge while poor knowledge was those who answer less than 2 questions correct.

The total mean knowledge score of health workers participated in the study about the WHO safe childbirth checklist was $1.4 \pm .75$ SD. This indicates that majority of the study participants had a poor knowledge status about the WHO safe childbirth checklist which is highly below the cut point level of 4.

Majority of the study participants 36(75%) haven't even heard about the checklist. Another (95%) don't have any idea about the components of the WHO safe child birth checklist and they don't know how to use this tool indicating a very poor status of knowledge related to the checklist.

More than three fourth (75%) of the participants in the study were not aware of whether Somaliland ministry of health has approved the use of the WHO safe childbirth checklist even though currently the ministry of health recommends the application of the checklist. A very few 3(6%) of the participants indicated that they had a training on WHO safe childbirth checklist but most of the participants (83%) showed that they interested to participate future trainings on the checklist if they became available this indicates that the health workers in gabiley MCHs have a poor knowledge on the checklist and they are very eager to participate in any training provided to them about this checklist by any institution.

Table 2: Knowledge about WHO childbirth checklist among health care workers at 4 public MCHs at Gabiley, Somaliland 2021

Knowledge items	Yes	NO	Not sure
	N (%)	N (%)	N (%)
1. Have you ever heard about WHO childbirth checklist	12 (25%)	36(75%)	0(0%)
2. Is it important for all health care workers to apply the checklist	37 (77.1)	3(6.25)	8(16.7)
3. Do you know the components of the checklist	2(4.2)	46(95.8)	0(0)
4. Is this checklist being widely accepted by Somaliland ministry of health development for prompt use	12 (25)	12 (25)	24(50)
5. Have you participated in any training or workshop about safe childbirth from any governmental or nongovernmental institutions while you were in this work	3 (6.3)	45 (93.7)	0(0)
6. Would like to participate and improve your knowledge related to the WHO safe childbirth checklist	40(83.3)	8(16.7)	0(0)

3.4: Attitude of health workers about WHO safe childbirth checklist

Findings on the attitude and what the health workers in the study area believe about the WHO safe childbirth checklist has been summarized in table 3. The scoring system and cut off level to measure items related to attitude of health care workers in gabiley about WHO safe childbirth checklist was described in the methodology section. The attitude was measured as positive and negative attitude. Positive attitude was for those respondents who show correct answer in 3-5 questions while negative attitude was any range less than 3.

Table 3 demonstrates results about the attitude of health workers on the WHO safe childbirth checklist including whether a health worker believe that the checklist is important for health workers to remember important steps in delivery service and whether the checklist can reduce the maternal and neonatal mortality and morbidity. The table also shows whether those health workers will approve the use of the checklist. The study found a relatively low pooled mean ($\mu=2.96$) and Standard Deviation (S.D=0.73) which is below the cut point of 3. This indicates that there was a negative attitude towards the use of the checklist among health workers at Gabiley public MCHs which might have an effect in the increased maternal mortality and morbidity in the whole country

Nearly half of the study participants agree that checklist is not important and helpful in order to give a service to a pregnant mother at the delivery department and that it might not have any effect in decreasing the already high maternal morbidity and mortality in the area. Similar half of the study participants also agree that it's the same whether or not to use the checklist and this suggests that health workers in the study area doesn't care about the use of the checklist as they believe it won't change anything and this shows how the attitude of the participants were poor in the assessed area.

Table 3: Attitude on the use of WHO childbirth checklist among health workers at 4 public MCHs at Gabiley, Somaliland 2021

Attitude Items	Mean	SD
I believe that WHO safe childbirth checklist is important and helpful	2.2	.35
This checklist helps health care workers to remember on what to do for the mother at any stage of labour	3.2	.84
I believe application of the checklist can significantly reduce maternal and neonatal mortality and morbidity	2.5	.93
I personally approve use of the checklist	4.3	.71
It is the same whether or not to use the checklist	2.6	.87
Pooled mean and standard deviation	2.96	0.73

Mean range/legend: 1.00- 2.99 (low=negative attitude), 3.0- 5.0 (high=positive attitude)

3.5: Practice of WHO Safe Child Birth Checklist among Health Workers

Practices towards the application of the WHO safe childbirth checklist was assessed by asking five (5) questions as shown in Table 4. Each question was assessed by good or poor practices. The scoring system and cut-off level to measure Practice was described in the methodology section. The scale measure practice from a maximum of 5 to a minimum of 1 Scores of more than 3 (>) were classified as having good practice while scores of less than 3 were classified as having poor practice of the WHO safe childbirth checklist.

The study found that practice of the checklist by the health care providers was very low with a mean of $1.02 \pm .24$ SD which is below the cut point of 3. Almost 95% of the participants agreed that they don't practice the checklist and all those participants who have used the checklist have mentioned that there are certain benefits on the use of the checklist and a very few 2.1% mention that there are certain barriers on the use of the checklist. Nearly 48% of the participants said that they will use the checklist in the future if they are trained so while the rest 52% of the participants insist still that they will not practice this checklist this indicates that this participants need to get opportunity to increase their understanding of the checklist since the knowledge and attitude always affect the practice of any skill.

Table 4: Practice of WHO childbirth checklist among health workers at 4 public MCHs at Gabiley Somaliland. 2021

Practice Items	Responses	Frequency	Percent
Have you ever practiced WHO safe child birth guidelines	• Yes	2	4.2
	• No	46	95.8
If you practiced ever , how did you found this checklist	• It is a helpful checklist and made the service here better	1	2.1
	• It doesn't have that much implication, the service here is the same with or without the checklist	1	2.1
	• It doesn't help totally	0	0
		46	95.8

	<ul style="list-style-type: none"> • I haven't practiced ever 		
Are there any benefits related with the use of the checklist	<ul style="list-style-type: none"> • Yes • No • I haven't practiced therefore don't know 	2 0 46	4.2 0 95.8
Are there any barriers related with the use of the checklist	<ul style="list-style-type: none"> • Yes • No • I haven't practiced therefore don't know 	1 1 46	2.1 2.1 95.8
Will you practice this checklist in the future	<ul style="list-style-type: none"> • Yes I will practice • No I won't practice 	23 25	47.9 52.1

3.6: Over all KAP mean scores

Table 5: Overall KAP mean score of the study subjects

KAP mean score of the study subjects Variable	Mean Score ± SD	Cut – off – point
Knowledge	1.4 ± .75	4
Attitudes	2.96 ± .73	3
Practice	1.02 ± .24	3

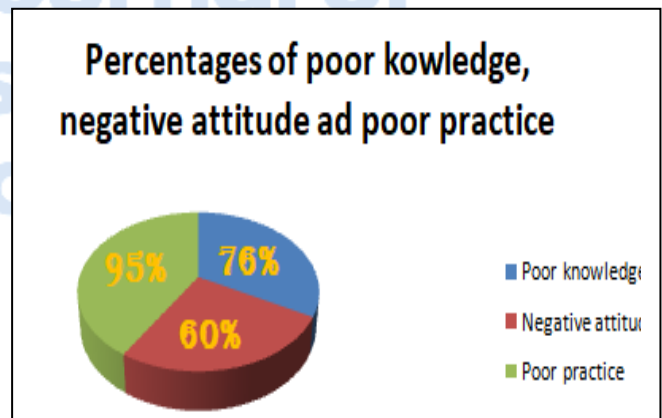


Figure 1: Percentages of Poor Knowledge, Negative Attitude and Poor Practice

The above table 5 demonstrates the mean scores of the KAP variables; the knowledge was measured using a scale comprised of 6 questions. The knowledge mean score among health worker respondents was 1.4 ± .75 SD which is below the cut –off –point of 4. Poor knowledge towards the WHO safe childbirth checklist among respondents accounted for 76.6% as depicted by figure number 1. Attitudes scale was composed of 5 questions; the mean score was 2.96 ±.73 SD which is below the average cut- off point of 3. Furthermore, about 60% of health

workers in gabiley public MCHs had negative attitudes towards the checklist. Similarly, the mean score of practice was poor $1.02 \pm .24$ SD. The practice scale was consisting of 5 questions with a cut-off point of 3. Approximately, 95% of study subjects revealed that they had poor practice towards the application of the WHO safe childbirth checklist.

4. DISCUSSION

4.1: Knowledge about WHO safe childbirth checklist

This study presented poor knowledge attitudes and practices (KAP) mean scores among the respondents, the study highlighted poor knowledge about 76% with a mean score of $1.4 \pm .75$ SD that is below the average cut –off point of 4. And this is highly consistent with a study conducted in some parts of Ghana showed 41% of health workers in rural Ghana were aware of the WHO safe childbirth checklist in which the rest 59% were unaware of the checklist and this numbers remain nearly the same in most underdeveloped countries due to poor educational quality and system, the low socio economic status and weak governmental policies to control the kind of service provided by public health facilities. ⁽¹²⁾

This study also revealed that majority of the respondents 75% haven't even heard about the WHO safe childbirth checklist while almost 95% don't have knowledge related to the components of the checklist showing a very poor knowledge status about the WHO safe childbirth checklist and this is highly different from a study done in India which identified that nearly 80% of the health workers have an adequate knowledge about the WHO childbirth checklist. This shows that in Somaliland the increased ratios of maternal and neonatal mortality and morbidity could be linked with the poor knowledge of the health workers specially the nurses and midwives about the safe childbirth mechanisms. ⁽¹³⁾

4.2: Attitude about WHO safe childbirth checklist

The overall attitude towards the WHO safe childbirth checklist in the study was found to be poor or negative attitude with a pooled mean of $2.96 \pm .73$ SD which is below the cut point of 3 according to likert scale. Almost half of the health care workers participated in the study agreed that the WHO safe childbirth checklist is not an important and helpful tool and that it

cannot decrease the already high maternal and neonatal mortality and morbidity in Somaliland which is highly different from another prospective pilot study of the WHO safe childbirth checklist program on improving the quality of care for maternal and newborn health which found that health care professionals should have a deeper understanding, believe and a positive attitude on the application of the WHO safe childbirth checklist for a better maternal and neonatal health and reduce maternal mortality and morbidity significantly. ⁽¹⁴⁾

Generally, developing positive attitude leads to an effective and increased practice of any skill, in this study, approximately three fourth (74%) of the participants approved or agreed with the use the checklist which seems a good or positive attitude in one sense but nearly half of them also mention that it will not matter whether or not to use the checklist. This indicates that health workers in this study will approve the use of the checklist while they believe it won't change that much this means there is still a negative attitude on the use of the checklist and this is highly different from the prospective pilot study of the WHO which suggests that developing positive attitude is an indicator of the effective application of the checklist. ⁽¹⁴⁾ This means that for a better application of the checklist it is more important to educate health care workers in gabiley MCHs about the importance and uses of the checklist in order to develop a positive attitude which could then lead to a good practice.

4.3: Practice about WHO safe childbirth checklist

The overall level of practice of the WHO safe childbirth checklist at gabiley public MCHs was very low or poor with a pooled mean of $1.02 \pm .24$ SD which is below the average cut point scale of 3. Almost majority 96% of the health workers in the study area showed that they don't currently practice the WHO safe child birth checklist but showed a hope that they will practice in the future and this is completely different from a study done by Haynes AB 2009 about the use of safety checklist to reduce morbidity and mortality in a global population showed that nearly one third of the participants have applied the safe checklist which had a greater and significant impact on decreasing the maternal mortality and morbidity. ⁽¹⁵⁾

5. CONSLUSION AND RECCOMENDATIONS

In conclusion, the present study revealed poor level of KAP mean scores among health care providers at Gabiley public MCHs. The knowledge of the study participants about the WHO safe childbirth checklist was poor almost an average 76% of the participants had a poor knowledge with a mean score of $1.4 \pm .75$ SD that is below the average cut –off point of 4. The overall attitude towards the WHO safe childbirth checklist in the study was found to be poor nearly 60% of the participants had a negative attitude with a pooled mean of $2.96 \pm .73$ SD which is below the cut point of 3. The overall level of practice was poor; almost 95% of the participants had never practiced the checklist and the pooled mean of $1.02 \pm .24$ SD which is below the average cut point scale of 3.

Based on the identified results, the present study recommends that government especially the ministry of health should introduce trainings and seminars to the health care providers in the MCHs about the advantages and uses of the checklist, and assure also that the knowledge of this checklist be included in the training of health staffs at university level. Beside that it is also important to generate policies and strategies to make sure that this checklist is being utilized by the health care providers providing service at the delivery service of all MCHs in Somaliland. Future studies on assessing the role and impact of not utilizing the WHO childbirth checklist on the overall maternal and neonatal mortality and morbidity is recommended using analytical methods to strengthen the available knowledge and theories on the checklist for a better understanding and application of the WHO safe childbirth checklist.

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