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Knowledge, attitudes and practices of public health midwives on adolescent and youth friendly health services and their role in Gampaha District, Sri Lanka

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Abstract

Introduction: Public health midwife (PHM) is the grass-root level health care provider for adolescents.

Objectives: To assess PHMs' knowledge, attitude, and practices on their role in provision of adolescent and youth friendly health services (AYFHS) in Gampaha District

Methods: A descriptive cross-sectional study was conducted in Gampaha District in 2019 using self-administered questionnaire. Scores for knowledge, attitudes and practices were expressed with median and interquartile range. Selected variables were presented using frequency distributions. Chi-Squared test or Fishers' exact test was used to assess associated factors with knowledge, attitude, and practice levels.

Results: Of 483 eligible persons, 90% (n=433) responded. Median age was 42 years (IQR: 36-51). A majority (n=339; 78.5%) accepted that "PHM has a role to play in AYFHS". Percentages identifying the PHMS' role in registering adolescents, identifying risky adolescents during home visits, providing details of AYFHS clinic, referring needy adolescents to it, and following risky adolescents in the field were 94% (n=406), 93.8% (n=405), 76.9% (n=332), 73.6% (n=318), 76.9% (n=332) and 76.6% (n=331), respectively. A positive attitude regarding their contribution on prevention of adolescent health issues, providing AYFHS services in the field were reflected among 300 (n=86.2%) and 351 (97.3%) respectively. Median percentage scores with IQR on knowledge, attitude and practices were 71.4 (52.5-98.9), 40 (25-55) and 47.6 (35.6-61.9). PHMs with satisfactory level of knowledge, attitudes and practices over 75% regarding their role in providing AYFHS were 46.7%, 12% and 9.7%. Satisfactory level of knowledge was positively associated with receiving training on adolescent health with in last three years (p=0.02) while age of 40 years and below was significantly associated with satisfactory level of attitude on PHMs' role in AYFHS (p=0.02).

Conclusions & Recommendations: PHMs' perception of their role in AYFHS was unsatisfactory. Implementation of targeted interventions for changing attitudes and practices on AYFHS is recommended.

Keywords: *adolescent, youth, adolescent & youth friendly health services, public health midwives*

Introduction

Out of 1.8 billion global population of young people aged 10-24 years, 90% reside in developing countries (1-2). Healthy as well as unhealthy behaviours acquired during adolescence will have effects during adolescence, adulthood and also in next generation (2-3). Globally, 10-20% of children and adolescents have mental health problems accounting for 15–30% of disability-adjusted life years (DALYs) lost during the first thirty years of life (4).

Out of 20.4 million population of Sri Lanka, 4.8 million are young persons and 3.3 million are adolescents. Adolescent and youth mortality rates are 66 and 166 per 100 000, respectively (5). Adolescent fertility rate remained static around 30 per 1000 since 1978 to 2016 (6). Overweight and obesity among grade 10 students showed an increasing trend from 2.3% to 6.2% among males and 3.5% to 7.4% among females over 2007-2017 (6). Global School Health Survey showed that only 28.5% of students were physically active at least for 60 minutes a day on five or more days during preceding week of the survey. Among students aged 13-17 years, 39% were being bullied within past 30 days, while 6.8%, 6.5% and 9.4% respectively had attempted suicide or had made plans on attempting suicide or seriously considered attempting suicide within the past 12 months (7). According to the National Youth Health Survey (2015), current smoking and use of alcohol among male youth during the week prior to survey were 17.6% and 10.2% respectively, while 16% had tried other additive substances. Approximately 50% of youth expressed the need of youth specialized health services reflecting the importance of strengthening AYFHS in the country (8).

Several evidence-based interventions to improve the health and wellbeing of the adolescents and youth are identified. Global Strategy for Women's, Children's and Adolescents Health 2016-2030 (9) as well as Global Accelerated Action for the Health of Adolescents (AA-HA) Guidance to Support Country Implementation (10) identified evidence-based interventions such as promotion of healthy development among adolescents, prevention of and response to health problems and implementation of a package of interventions (9-10).

Although AYFHS had been initiated in Sri Lanka as early as in 2005 and around 50 hospital centres established by 2008, there were only nine functioning centres in 2015. Revamping process was initiated and new standards on AYFHS were developed in 2016 adopting global standards for quality health-care services for adolescents (11). Field health component was emphasized in 2017 (12) and all medical officers of health (MOHs) were instructed to conduct at least one AYFHS clinic per month (13). The National Strategic Plan on Adolescent and Youth Health identified strengthening the health system to cater for adolescent and youth health as one of its strategic objectives (6, 14). However, it was given less priority at divisional and district levels.

Being the grass root level health care provider who is visiting families, the PHM is identified as the best person to recognize the at-risk adolescents and youth. They are responsible for providing field services for adolescents in their respective area under the guidance of MOH. Their responsibilities are health promotion among adolescents, supporting activities of the AYFHS clinic, registration of adolescents during home visits, identifying risky adolescents, provision of healthcare through MOH and referrals follow up. Hence, it is important to assess PHMs' knowledge and attitude on their role in AYFHS delivery in the field and practices, in order to strengthen AYFHS in the country (13). The present study was intended to assess PHMs' knowledge, attitudes and practices on their role in AYFHS in Gampaha District where the second highest population is observed in the country.

Methods

A descriptive cross-sectional study was conducted among all eligible PHMs engaged in field health services in Gampaha District. Those who were on maternity or medical leave within the study period were excluded from the study.

Data analysis

Data entry and analysis were conducted using Statistical Package for Social Sciences (SPSS) (version 21). Scoring systems were developed for assessing knowledge, attitude, and practices of PHMs on their role in AYFHS. Percentage scores were calculated and presented using median and inter-quartile range (IQR) considering the distribution. Median percentage score of ≥75% was identified as the 'satisfactory' level for knowledge, attitudes and practices. Factors associated with satisfactory level were assessed using Chi-Squared Test and Fisher Exact Test as applicable.

Results

The study sample consisted of 433 females. Their median age was 42 years (IQR: 36-51). The majority (n=432; 99.8%) were Sinhalese and had educational qualification of GCE (Advanced Level) and above (n=387; 88%). Over 85% (n=374) were married. Only 313 (72.6%) had received training on adolescent health within last three years, with 273 (63.3%) receiving it at MOH office and 2.3% (n=10) during basic training.

Knowledge on PHMs' role in AYFHS

Only 78.5% of PHMs were aware of their role in providing AYFHS (Table 1). Registering adolescents (94.0%) and identifying risky adolescents during home visits (93.7%), providing ASRH services to unmarried adolescents over 16 years if cohabitating with a male (79.6%), providing details about AYFHS clinic to the community (76.9%), referring them to AYFHS clinics (73.6%) and their follow-up (76.6%) were some key aspects that they were knowledgeable about. Only 66.4% showed awareness on their role in providing sexual and reproductive health services (SRH). With regards to knowledge on ensuring expected standards in AYFHS (Table 2), over 80% were aware of the need to maintain privacy, confidentiality and friendliness, however, less than 50% knew about ensuring less waiting time, consent needed for updating parents on their issues and the importance of working with non-governmental partners.

Median percentage score obtained for knowledge was 71.4 (IQR: 52.5-98.9), with only 46.7% (n=202) reporting a satisfactory level of ≥75%. Training received on adolescent health was the only factor significantly associated with a satisfactory level of knowledge (p=0.02) (Table 3).

Attitudes on PHMs' role in AYFHS

Out of all PHMs, 86.2% had positive attitudes towards contribution to the prevention of issues in adolescent and youth, and 97.2% agreed on providing AYFHS in the field (Table 4). Median percentage score for attitudes was 40.0 (IQR: 25.0-55.0), with only 12% having a satisfactory level of attitudes of ≥75%. Being aged 40 years and above was the only factor associated with satisfactory level of attitudes (Table 3).

Self-reported practices on PHMs' role in AYFHS

Over 40% of the PHMs engaged in the following practices 'always' or 'frequently': educating parents on availability of AYFHS in the field (42.1%) and on helping adolescents with issues (52.5%); registering adolescents during home visits (71.5%); helping in the provision of services at the clinic (44.1%); sending them for counselling (57.1%); maintaining confidentiality (95.8%); and providing contraceptives for unmarried girls (74.8%). Identifying the at-risk adolescents (15.2%); giving appointments to AYFS clinics (32.2%); and follow-up (10.0%) were 'never' practised in more than 10% (Table 5).

Median percentage score for practices was 47.6 (IQR: 35.6-61.9), with only 9.7% having a satisfactory level of ≥ 75%. No significant associations were found with their level of practices (p<0.05) (Table 3).

Table 1: Distribution of study sample by knowledge on public health midwife (PHM)'s role in AYFHS (N=432)

Knowledge on PHM's role in AYH	No.	%
PHM has a role in providing AYHS		
Yes (correct answer)	339	78.5
No	15	3.5
Do not know	78	18.0
Registering adolescents found during home visits		
Yes (correct answer)	406	94
No	5	1.1
Do not know	21	4.9
Identify risky adolescents during home visits		
Yes (correct answer)	405	93.7
No	6	1.4
Do not know	21	4.9
Providing the details about adolescent youth friendly health service clinic in the area to the community		
Yes (correct answer)	332	76.9
No	18	4.2
Do not know	82	19.0
Referring the adolescents and youth to adolescent friendly clinics		
Yes (correct answer)	318	73.6
No	21	4.9
Do not know	93	21.5
Follow up of risky adolescents in the field		
Yes (correct answer)	331	76.6
No	28	6.5
Do not know	73	16.9
Provision of sexual and reproductive health services for unmarried adolescents over 16 years		
Yes (correct answer)	287	66.4
No	43	10.0
Do not know	102	23.6
Provision of sexual and reproductive health services for unmarried adolescents under 16 years if cohabiting with a male		
Yes (correct answer)	344	79.6
No	17	4.0
Do not know	71	16.4

Conduct of life skill programmes for non- school going adolescents with MOH and the team		
Yes (correct answer)	290	67.1
No	52	12.1
Do not know	90	20.8
Having good link with hospital adolescent and youth friendly clinic		
Yes (correct answer)	275	63.7
No	35	8.1
Do not know	122	28.2
No need to work with non-governmental organizations while working on adolescent and youth friendly health services (n=430)		
Yes	40	9.3
No (correct answer)	174	40.5
Do not know	216	50.2

Adolescent & youth friendly health services (AYFHS)

Discussion

This study assessed the knowledge, attitudes and practices of 433 PHMs on their role in provision of AYFHS. Those having satisfactory levels of knowledge, attitudes and practices on PHMs' role in AYFHS of ≥75% were 46.7%, 12% and 9.7%, respectively.

Inclusion of all PHMs in Gampaha District was one main strength of the study. The accuracy of data provided was maximized by using a pre-tested self-administrated questionnaire developed after extensive literature search and with expert opinion. However, generalizability of the findings is limited to Gampaha District. Yet, this district, being the second highest populated district, increases its applicability in taking necessary steps at the national level.

Despite several measures being taken by the Ministry of Health to strengthen AYFHS in Sri Lanka such as development of standards, guidelines, protocols and capacity building (12, 15-16), only 72.6% had received training on AYFHS within last three years. This reflects the need for monitoring at the district and divisional levels on AYFHS training, as all the districts are having master trainers trained at national level on AYFHS. Only 10 (2.3%) having received AYFHS training in basic training highlights the need for revisiting the curriculum of the basic training of PHMs. Further, being an educated group with necessary educational qualification, PHMs also reflect their capability to grasp subject matter provided during training sessions.

Though it should be 100%, only 78.5% of the PHMs had knowledge on their role in providing AYFHS. One positive aspect is that 94% knew about registering adolescents during home visits. However, only 76.9% were aware of their role in raising awareness about AYFHS clinic and 73.9% in referring adolescents and youth to AYFHS clinics in the field.

Even with clear guidance provided by the Ministry of Health through national standards on AYFHS, protocols, guidelines and circulars (12-13, 15-16), only 46.7% were having satisfactory knowledge on PHMs' role in AYFHS of ≥75%, reflecting the inadequacy of capacity building on updates of circulars and guidelines. Being trained on AYFHS within the last three years was positively associated with satisfactory level of knowledge on PHMs role in AYFHS ($p<.05$), highlighting the importance of capacity building of all PHMS by trained district teams.

Table 2: Distribution of study sample by knowledge on expected standards of AYFHS clinics (N=433)

Variable	No.	%
Less waiting time		
Yes (expected standard)	171	39.6
No	85	19.7
Do not know	176	40.7
Privacy		
Yes (expected standard)	374	86.4
No	3	0.7
Do not know	56	12.9
Confidentiality		
Yes (expected standard)	400	92.4
No	1	0.2
Do not know	32	7.4
Acceptability		
Yes (expected standard)	339	78.3
No	1	0.2
Do not know	93	21.5
Updating parents of their issues without adolescents' consent		
Yes	111	25.6
No (expected standard)	159	36.7
Do not know	163	37.7
Friendliness		
Yes (expected standard)	376	86.9
No	1	0.2
Do not know	56	12.9

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The majority (86.2%) had the attitude that PHM can contribute to the prevention of health issues in adolescents. However, though treating client with privacy and confidentiality is one of the guiding principles of the standards on AYFHS (12), only 58.9% strongly agreed with this, demonstrating the need for focusing on attitudinal changes among PHMs. This need was further reflected by having a satisfactory level of attitudes only among 12% of PHMS. A significantly higher percentage with satisfactory level of attitude seen among those below 40 years compared to those aged 40 and above ($p<.05$), shows that younger group of PHMs are more sensitive to the needs of adolescents, probably because they have passed that age recently or their basic training was more sensitive to newer topic such as adolescent health than the older curriculum. This reflects the need of conducting refreshment training focusing more on attitudinal changes for the older group of PHMs.

When compared with the median percentage knowledge score on PHMs' role in AYFHS (71.4; IQR: 52.5-98.9), median percentage score obtained for practices (47.6; IQR: 35.6-61.9) was very much substandard. Only 9% had satisfactory level of

Table 3: Levels of knowledge, attitude, and practices of public health midwives on their role in AYFHS according to characteristics of the study group

Characteristic	Knowledge No. (%)		p	Attitude No. (%)		p	Practices No. (%)		p
	≥75%	<75%		≥75%	<75%		≥75%	<75%	
Nationality									
Sinhalese	200	232	0.46**	51	381	0.12**	42	390	1.0*
	(46.3)	(53.7)		(11.8)	(88.2)		(9.7)	(90.3)	
Tamil	1	0		1	0		0	1	
	(100.0)	(0.0)		(100.0)	(0.0)		(0.0)	(100.0)	
Religion									
Buddhism	194	219	0.64**	50	363	1.0*	40	373	0.68*
	(47.0)	(53.0)		(12.1)	(87.9)		(9.7)	(90.3)	
Catholic/Christian	7	10		2	15		2	15	
	(41.2)	(58.8)		(11.8)	(88.8)		(11.8)	(88.2)	
Age category									
40 years and	96	107	0.68**	32	171	**0.02****	22	181	0.33**
below	(47.3)	(52.7)		(15.8)	(84.2)		(10.8)	(89.2)	
>40 years	96	116		18	194		17	195	
	(45.3)	(54.7)		(8.5)	(91.5)		(8.0)	(92.0)	
Marital status									
Never	24	24	0.62**	9	39	0.13*	5	43	0.82*
married	(50.0)	(50.0)		(18.8)	(81.2)		(10.4)	(89.6)	
Others	177	206		43	340		36	347	
	(46.2)	(53.8)		(11.2)	(88.8)		(9.4)	(90.6)	
Educational level									
GCE(A/L) and	178	211	0.41**	48	341	0.8*	39	350	0.55**
above	(45.8)	(54.5)		(12.3)	(87.7)		(10.0)	(90.3)	
GCE(O/L)	22	20		4 (9.5)	38		3	39	
	(52.4)	(47.6)			(90.5)		(7.1)	(92.9)	
Training status on adolescent health within last 3 years									
Received	156	157	**0.02***	40	273		27	286	0.2*
	(49.8)	(50.2)		(12.8)	(87.2)		(8.6)	(91.4)	
Not received	44	74		12	106	0.46*	15	103	
	(37.3)	(62.7)		(10.2)	(89.8)		(12.7)	(87.3)	
Service duration as PHM									
Worked >10	155	174	0.58*	34	295	0.07*	33	296	0.76*
years	(47.1)	(52.9)		(10.3)	(89.7)		(10.0)	(90.0)	
Worked 10 years	44	56		17	83		9	91	
or less	(44.0)	(56.0)		(17.0)	(83.0)		(9.0)	(91).0	

* Fisher's Exact test **Chi square test
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Table 4: Distribution of study sample by attitude on public health midwives role in AYFHS

Variable	No.	%
Think that "PHM can contribute to the prevention of issues in adolescent and youth" (n=348)		
Yes	300	86.2
No	48	13.8
It is important to provide AYFHS at the field (n=361)		
Yes, I agree	351	97.2
No, I disagree	10	2.8
Registering adolescents during home visits is important to identify at risk adolescents (n=374)		
Yes, I agree	356	95.2
No, I disagree	18	4.8
It is important that PHM should identify the adolescents with risk and issues and send forAYFH clinics (n=394)		
Yes, I agree	363	92.1
No, I disagree	31	7.9
In the AYFH clinics, client should be treated with respecting privacy and confidentiality always (n=409)		
Yes, I agree	398	97.3
No, I disagree	11	2.7
It is important that PHM should follow-up adolescents with issues at the field (n=402)		
Yes, I agree	359	89.3
No, I disagree	43	10.7
As a PHM, you should do health education for adolescence (n=401)		
Yes, I agree	362	90.3
No, I disagree	39	9.7
PHM should work together with non-health sector in provision of AYFHS (n=383)		
Yes, I agree	275	71.8
No, I disagree	108	28.2
PHM has to contribute lot in provisionof AYFHS in the field (n=385)		
Yes, I agree	253	65.7
No, I disagree	132	34.3

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Table 5: Distribution of the sample by practices of the public health midwives in providing AYFHS in the field

Variable	No.	%
Educate parents regarding availability of and youth health services in the field (n=406)		
Yes, always or frequently	171	42.1
Yes, sometimes	224	55.2
Never	11	2.7
Educate parents on helping the adolescents with issues (n=406)		
Yes, always or frequently	213	52.5
Yes, sometimes	188	46.3
Never	5	1.2
Register the adolescents during home visits (n=407)		
Yes, always or frequently	291	71.5
Yes, sometimes	109	26.8
Never	7	1.7
Identify at risk adolescents and refer them to the adolescent and youth friendly clinics (n=387)		
Yes, always or frequently	115	29.8
Yes, sometimes	213	55.0
Never	59	15.2
Help in provision of services to adolescents and youth at the clinic (n=392)		
Yes, always or frequently	173	44.1
Yes, sometimes	181	46.2
Never	38	9.7
Give appointments to come to adolescent and youth friendly clinic in the field (n=363)		
Yes, always or frequently	84	23.2
Yes, sometimes	162	44.6
Never	117	32.2
Conduct or send for counselling for adolescents with identified problems (n=380)		
Yes, always or frequently	217	57.1
Yes, sometimes	150	39.5
Never	13	3.4
Keep confidentiality if you identify adolescents with issues (n=401)		
Yes, always or frequently	384	95.8
Yes, sometimes	13	3.2
Never	4	1.0
Provide contraceptives for unmarried girl over 16 years cohabiting with a man after informing medical officer of health (n=389)		
Yes, always or frequently	291	74.8
Yes, sometimes	78	20.1
Never	20	5.1

Follow-up the adolescents with risk or issues in the field (n=389		
Yes, always or frequently	144	37.0
Yes, sometimes	206	53.0
Never	39	10.0
Communicate with hospital adolescent youth friendly clinics while providing services to adolescents and youth (n=365)		
Yes, always or frequently	123	33.7
Yes, sometimes	179	49.0
Never	63	17.3
Communicate with other non-health sector while providing services to adolescents and youth (n=368)		
Yes, always or frequently	54	14.7
Yes, sometimes	207	56.2
Never	107	29.0

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practices of ≥ 75%. These results show the need for identifying barriers in providing AYFHS, taking remedial actions and strengthening the monitoring and supportive supervision. Only 57.6% providing contraceptives for unmarried girls over 16 years cohabiting with a man shows the need of updating PHMs on existing circulars and guidelines on provision of sexual reproductive health services to the adolescents (15, 17). According to focus group discussions conducted among 38 PHMs in Gampaha District, the workload of PHMs, inadequate training, lack of facilities at service delivery points, issues pertaining to referrals and lack of supportive supervision have been expressed barriers for service provision (18).

Global literature is comparable with findings of the present study. A study conducted by Geary et al. (2014) in a rural area of South Africa (1) showed that there are breaches of confidentiality reported due to informing parents, emphasizing the importance of proper training of the staff as in the present study. A systematic review conducted by Chilinda et al. (2014) also showed that unprofessional attitude of health care professionals and lack of youth friendly reproductive health services inhibit adolescents from gaining access to SRH services in developing countries (19). It also recommended to provide services in a more youth friendly manner to increase uptake of services by adolescents as in present study.

Conclusions & Recommendations

The present study showed that the knowledge, attitude and practices of PHMs on their role in provision of AYFHS were substandard and emphasizes the evidence-based interventions focusing on strengthening the knowledge and attitudes in order to improve practices on AYFHS while monitoring and evaluation of the AYFHS as well as supportive supervision.

As present study was conducted among PHMs only in one district conducting similar studies in other districts would be important to see the district variations. Further, qualitative studies among different categories of public health staff including supervisory staff would add more in-depth data to improve AYFHS.

Public Health Implications

- The present study showed that the knowledge, attitude and practices of PHMs on their role in provision of AYFHS were substandard.
- Study suggests implementation of the evidence-based interventions focusing on strengthening the knowledge and attitudes among PHMs in order to improve practices on AYFHS while monitoring and evaluation of the AYFHS as well as supportive supervision.

Author Declarations

Competing interests: None of the authors are having any conflict of interest.

Ethics approval and consent to participate: Ethical clearance was obtained from Medical Research Institute of Sri Lanka (ERC/MRI-04/2018) and necessary administrative clearances were obtained. Data collection was conducted after obtaining informed written consent in a standard manner with minimal disturbance for the service provision.

Ethical approval was obtained from the ethic committee of the Medical Research Institute (ERC/MRI-04/2018). Informed written consent was taken from the participants prior to the commencement of data collection

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Author contributions: PVSC conceptualized of the study, conducted literature review, data analysis and drafting of the initial manuscript. BMNDB conceptualized the research, reviewed literature, data collected, analysed and data compiled. RIWN contributed to develop proposal, data analysis and editing the manuscript. AJMB was involved in literature search, data analysis and editing the manuscript. CJJ involved in literature review and data compilation. HMIH contributed to literature search and analysis. ANJB was involved in conceptualization of the research and literature search. All authors read the final manuscript.

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