Title

Predictors of Adolescent Friendly Health Services Implementation in Two Administrative Districts of the Eastern Region of Ghana

Authors

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Background

The wealth and future of humanity is its younger generation, as such their health and wellbeing deserve utmost attention [1, 2, 3, 4]. Adolescents are special, but vulnerable with special healthcare needs, which are mostly ignored on the presumption that they are healthy [5]. Adolescents do not purposefully seek healthcare, as they seem to be in good health [6]. Adolescent Friendly Health Services (AFHS) aim at providing accessible, developmentally appropriate and comprehensive evidence-based promotional, preventive, therapeutic, and rehabilitative health care to adolescents through well-trained professionals and well-equipped health facilities [7].

This study focused on systemic changes to care delivery by health facilities that could be attributed to the implementation and adherence to the AFHS concept that had been introduced into the health sector by the Ghana Ministry of Health in the late 1990s [7, 8]. For this study early adopters/early adopter facilities are defined as health facilities, which have received intensive training and have been working over a sustained period to transform their facility towards AFHS and late adopters/late adopter facilities are health facilities that have not received any intensive training and are "lagging behind" in AFHS implementation. Also organizational characteristics of health facilities were defined to include administrative activities, clinical care infrastructure, logistics monitoring and capacity building. AFHS Implementation characteristics followed the World Health Organization (WHO) criteria and included equity, accessibility, acceptability, appropriateness and effectiveness. The paper is part of work towards a dissertation submitted as part of requirements towards a doctor of public health degree at the Drexel University School of Public Health in Philadelphia.

Objectives

This study sought to explore adherence of health facilities in Ghana to the World Health Organization (WHO) AFHS concept. The study also identified obstacles the facilities faced in implementing the program, innovative measures taken to overcome them and any other approaches to enhance AFHS delivery to the adolescent population.

Methods and data

A cross-sectional (observational) study design with a multi-informant (community members, health workers, adolescents and review of documents) and mixed method survey (quantitative and qualitative) was used to assess adherence to AFHS criteria among health facilities providing AFHS-oriented care in the Akwapim North and South

Districts of Ghana. Data collection tools consisted of 8 modules, 6 predominantly quantitative and 2 qualitative.

Data analysis

Quantitative data was entered into IBM SPSS version 20, manually checked for consistency and pooled together in the form of scores addressing the components of organizational and implementation characteristics. Descriptive analysis generated means, medians (used for skewed variables), standard deviations, histograms and distribution curves that helped identify the distribution of continuous variables. Unpaired t-tests, Mann-Whitney U tests, Pearson's correlation tests and Spearman's rho (for skewed variables) were used for bivariate analysis between early and late adopters. Qualitative data was analyzed thematically providing information on facilitators and barriers to AFHS implementation, quotes were provided to illustrate the themes.

Ethical considerations

The study received ethical approvals from the Ghana Health Service Ethics Review Committee and the Drexel University Office of Regulatory Research Compliance. The study did not involve collecting information that could incriminate any participants (adolescents and adults alike). The objectives of the study were well explained, consenting processes followed strictly and only those who consented were involved in the study.

Results

Health facilities identified as early adopters had significantly higher AFHS implementation compared to late adopters, and the association of adopter category with AFHS implementation did not vary by location (urban vs. rural). Organizational characteristics of clinical care infrastructure, logistics monitoring, and capacity building, were significantly associated with implementation. Major barriers to AFHS implementation included care provider attitude/behavior towards adolescents, community attitudes about adolescents receiving sexual and reproductive health services like family planning, and health care costs (affecting adolescents and health facilities).

Conclusions and implications

The Ghana Ministry of Health initiative to transform the system towards AFHS appears to be successful, as early adopters have higher rates of implementation than late adopters, but it is important to note that a transformation of this nature takes time. The change towards AFHS implementation is supported by organizational changes to clinical care infrastructure, logistics monitoring, and capacity building, suggesting that the addition of a training and technical assistance program may speed the change process. Finally, while facility structure and process issues are important for transforming the Ghana Healthy System towards AFHS, it appears that successful transformation also depends, in part, upon provider and community attitudes, available resources for work, and health care policies related to costs, highlighting the importance of working with

health care professional organizations, community leaders, and other stakeholders to institute full system-wide change.

References
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Table 1: Mean differences in implementation by adoption status

Characteristics		Total (N)	Mean (X)	Standard deviation	t (significance)
Equity	Early	8	0.74	0.10	-4.83 (<0.001)*
	Late	6	0.47	0.11	
Accessibility	Early	8	0.58	0.09	-2.03 (0.065)
	Late	6	0.45	0.13	
Acceptability	Early	8	0.87	0.06	-1.50 (0.159)
	Late	6	0.82	0.07	
Appropriateness	Early	8	0.50	0.09	-2.84 (0.015)*
	Late	6	0.36	0.09	
Effectiveness	Early	8	0.70	0.10	-2.35 (0.038)*
	Late	6	0.58	0.08	
Overall AFHS implementation	Early	8	0.67	0.06	-4.35 (0.001)*
	Late	6	0.54	0.06	
The difference in mean scores are statistically significant					

Table 2: Mean differences in implementation by location

Characteristics		Total (N)	Mean (X)	Standard deviation	t (significance)
Equity	Urban	4	0.57	0.16	0.70 (0.497)
	Rural	10	0.64	0.18	
Accessibility	Urban	4	0.53	0.07	-0.20 (0.843)
	Rural	10	0.52	0.14	
Acceptability	Urban	4	0.81	0.10	1.27 (0.230)
	Rural	10	0.86	0.05	
Appropriateness	Urban	4	0.43	0.10	0.13 (0.900)
	Rural	10	0.44	0.12	
Effectiveness	Urban	4	0.61	0.02	1.19 (0.264)
	Rural	10	0.66	0.13	
Overall AFHS implementation	Urban	4	0.59	0.07	0.60 (0.559)
	Rural	10	0.62	0.10	
The difference in mean scores are statistically significant					

Table 3: Organizational characteristics and AFHS Implementation

Characteristic	Pearson correlation (significance)			
	Administrative functions	Clinical care infrastructure	Logistic monitoring °	Capacity building
Equity	-0.26 (0.37)	0.48 (0.08)	0.16 (0.58)°	0.21 (0.47)
Accessibility	-0.29 (0.32)	0.53 (0.05)	0.48 (0.08)°	0.53 (0.05)
Acceptability	-0.49 (0.08)	0.42 (0.14)	0.03 (0.91)°	0.30 (0.29)
Appropriateness	-0.03 (0.91)	0.72** (0.00)	0.59* (0.03)°	0.32 (0.26)
Effectiveness	0.21 (0.48)	0.71** (0.01)	0.20 (0.51)°	0.64* (0.02)
Overall AFHS implementation	-0.20 (0.49)	0.72** (0.00)	0.36 (0.21)°	0.49 (0.08)
Correlation is significant at 0.05 level (2 tailed)				
Correlation is significant at 0.01 level (2 tailed)				
°Spearman's rho (significance) as characteristic derived from non-normally distributed variables				