Original Article

Factors influencing guardians in children attendance of Growth Monitoring Promotion from 36 to 59 months in Zambia

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ABSTRACT

Background: Growth Monitoring has been promoted as one of the key components of community nutrition programmes since the early 1980s and has revealed positive impacts on child growth outcomes by assessing growth allows capturing growth faltering before the child reaches the status of under-nutrition. But indicators reveal that the attendance of children for growth monitoring and promotion between 36 to 59 months is low in Zambia.This study therefore aimed at assessing the factors influencing guardians in children attendance of Growth Monitoring Promotion from 36 to 59 months in Zambia.

Methods: A study employing both quantitative and qualitative cross section study was conducted to assess the factors influencing guardians in children attendance of Growth Monitoring Promotion from 36 to 59 months in Zambia. The study was done in Kabwe district, Zambia. A semi-structured questionnaire was developed for data collection. 110 guardians were interviewed from 10 health facilities.

Results: The mean age was 45.7(SD 7.91) years) Most of the participants were below the age of 35 years (95%). The majority of the participants had attained secondary school education (62%). Most of them were married (87%).The study found that peers association, access and providers attitudes to the health facility and providers influenced guardians in the children attendance of growth monitoring and promotion from 36-59 months.

Conclusion: The study results show that demographic factors including guardians' education, marital status and age influences continued attendance for children in growth monitoring and promotion. Peer associations, access to the health facility f and the providers' attitudes influences guardians in health seeking behaviours in the continued attendance of children for growth monitoring and promotion.

INTRODUCTION

Growth monitoring is the systematic assessment of the growth rate of a child in comparison to a stand by periodic, frequent anthropometric measurements in order to verify growth adequacy and identify growth faltering early while Growth Monitoring and Promotion is a preventive activity comprised of Growth Monitoring linked with promotion which is mainly done through counselling thereby increases awareness about child growth, improving the caring practices, increasing demand for other services as needed, and serves as the core activity in an integrated child health and nutrition program, when appropriate.[1] Growth Monitoring has been promoted as one of the key components of community nutrition programmes since the early 1980s and has revealed positive impacts on child growth outcomes

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by assessing growth allows capturing growth faltering before the child reaches the status of under-nutrition.[2]

Among the child's rights, is growth monitoring and promotion of which countries were called to institutionalize child growth monitoring and promotion programs as one of the actions to prevent malnutrition.[3,4] The rationale for this derives from the fact that child growth is a good proxy for child well-being, and the child who has healthy growth will not be malnourished. Meanwhile, the child's right is closely linked to that of the parents, who have a right to know if their child is growing well and be able to correct any condition causing poor growth. Equally, the Zambian government identifies growth monitoring and promotion programme as a key strategy for early detection of growth faltering; this programme is implemented in all health centers and at community levels, the ideal situation being that all the children under the age of five years are to be taken for growth monitoring every month, where they are weighed and their weight are recorded in the under five cards or growth monitoring chart.[5]

The importance of Growth Monitoring lies in helping to monitor the growth of the child; it is an important indicator of the health and nutritional status of a child. It is very important to measure and monitor the child's height to judge the adequacy of diets or supplementary food being given because young children are vulnerable because of their high nutritional requirements to support growth and development.[6]Nonetheless, indicators reveal that the attendance of children for growth monitoring and promotion between 36 to 59 months is low in Zambia.[5]This study therefore aimed at assessing the factors influencing guardians in children attendance of Growth Monitoring Promotion from 36 to 59 months in Zambia.

METHODS

A study employing both quantitative and qualitative cross section study was conducted to assess the factors influencing guardians in children attendance of Growth Monitoring Promotion from 36 to 59 months in Zambia. The study was done in Kabwe district, Zambia. Kabwe is a typical Zambian district both socially and economically. Kabwe is a city found in Central Province of Zambia. It has an estimated population of about 208,000 people and provincial headquarters of central province.[7] Kabwe district has 32 health facilities and there are 2 hospitals, 23 Urban Health Centres, 1 Rural Health Centres and 6 Health Posts. Out of the 32 health facilities, 23 health facilities offer child health services.[5]

To achieve the study objectives, 10 health facilities out of the 32 health facilities in Kabwe were randomly selected. The study population for the study were guardians whose children where between the ages of 36 to 59 months old, in the selected health facilities in Kabwe District. To meet the study sample which was 100, 11 participants who met the inclusion criteria were randomly selected from each healthy facility. Guardians who were willing to take part in the study were included in the study and Guardians who were not willing were excluded from the study.

A semi-structured questionnaire was developed for data collection. The questionnaire comprised of two parts namely demographic data and influencing factors. The demographic data included guardians' age, guardians education level, guardians marital status and guardians employment status. Open ended questions on individual influences, materials received, getting to the health facilities and relationships with the health workers were asked. The questionnaire was translated to Bemba for participants who were not conversant with English language. Research assistants were engaged to collect the data and to assist those who were unable to read and write.

After data collection, the questionnaires were stored in a locked filing cabinet for confidentiality. Data was transcribed verbatim by an independent person. In transcribing, confidentiality was ensured by use of codes instead of names. The data collected was checked, analysed and entered using Statistical Package for Social Sciences (SPSS) version 16.

Descriptive statistics; frequencies and percentages, means and standard deviation were used to describe the demographic characteristics. Content analysis was used to analyse qualitative data which was later grouped into sub themes and eventually emergent themes presented in table form.

Ethical clearance and approval was sought from the University of Lusaka research ethics committee (UNILUSREC). Administratively written permission to conduct the research was obtained from Zambia's Ministry of Health and Kabwe District Health Office. Further permission was obtained from the health facilities in-charges. Information about the study was provided to the participants through the information sheets. Permission from the participants was sought by signing consent forms provided to them. Participants were given the right to withdraw from the study anytime if they wished so as there were no risks of not being offered health if they did not participate in the study. Information collected from all participants was treated with confidentiality as names of the participants were not required during data collection and was not given to any partner or project for further analysis. The data file on the computer was also protected with a password and was only accessed by the researcher. Participants were informed that there were no direct benefits to them but the study shed light on the factors influencingguardians in children attendance of Growth Monitoring Promotion from 36 to 59 months in Zambia.

RESULTS

Demographic profile

The respondents that took part in the study were 110 females. The mean age was 45.7(SD 7.91) years) Most of the participants were below the age of 35 years (95%). The majority of the participants had attained secondary school education (62%). Most of them were married (87%). The rest of the description is shown in Table 1.

Factors	Frequency
Guardians' Age range	
16-20	7
21-25	31
26-30	28
31-35	17
36-40	12
41-45	3
46-50	2
Mean age	45.7
Standard deviation	7.91
Guardians' education level	
Not attended school	5.5
Primary level	22.7
Secondary level	62.7
Tertiary	9.1
Guardians' marital status	
Single	6
Married	87
Divorced	1
Widowed	5
Guardians employment status	
Unemployed	30
Business	47.3
Employed	22.7

Guardian factors influencing children attendance of growth monitoring and promotion from 36-59 months

The study found that peers association, access and providers attitudes to the health facility and providers influenced guardians in the children attendance of growth monitoring and promotion from 36-59 months. The rest of the description is in Table 2.

Sub theme	Emergent theme
Reminders from neighbours *Encouragement from colleagues* *Spouse insistency*	*Peer association*
No mosquitoes *No food supplements* *Vitamin A* *Mebendazole*	*Incentives*
Many hours to reach health facility *Time taken to be attended to* *Easy accessibility to health facility*	*Access*
Health workers understanding *Services educative* *Good nurses* *Health workers are calm*	*Providers attitudes*

DISCUSSION

Demography

Only females took part in this study asfemales take up the role of careproviders in most societies. Similarly, studies in some African countries have revealed this trend as males take up other roles including provision of material things as the African culture dictates.[8,9] Maternal age has been noted to determine health seeking behaviour as was showed in his study with the majority of guardians being between the ages 21-35 which is the prime age in female parenting.[10] Guardians' education was found to influence children attending at growth monitoring and promotion programme has and hence linked to health seeking behavior in this study like other African countries. A study done in Nigeria found that the secondary education was a factor in parental care-seeking behavior in that with education, parents are empowered with knowledge.[11] While it is acceptable in health seeking behaviours that guardians who are educated perform better compared to the guardians who were not educated.[12]The current study shows the trend to reduce with tertiary education. A plausible explanation is that those with tertiary education are likely to be in full time employment and hence may not have time to attend growth monitoring and promotion. As marital status determines health seeking behaviour,likewise, married guardians in this study were the majority and hence an influencer of children attendance of growth monitoring and promotion.[11,13]

While social influences are a factor in health service utilization, it was noted that attendance of children in growth monitoring and promotion was influenced guardians friends or peers. This is due to the fact that peer effects are strong influencers in health care service utilization.[14,15] Since social influences has been noted to influence service utilization positively, social support networks would be useful as people can have a sense of belonging with the support networks where people require similar services.[16] Meanwhile peer influence has been found by other studies to influences attendance both positively and negatively by undermining the importance of under-five services.[17] Equally, what would be helpful is to create sociocultural constructs for collectivistic values to enhance increased growth monitoring and promotion attendance for children between 36-59 months.[18]

This study show that access influence attendance of children for growth monitoring and promotion and is therefore supported by other findings in various studies.[19,20] This suggests that reduced distance to health facility can improve utilization of health services and that includes growth monitoring and promotion for children between 36-59 months as increased distance from home to health facility is associated with reduced use.[21,13]Where there is poor access to health facilities, attendance has not been satisfactory.[22]That calls for prompt attention in health facilities. Results from the study show that providers' attitudes influences continued attendance of growth monitoring and promotion in children. This is consistent with the findings with other studies that shows that unfriendly attitude of the health workers pose a serious challenge in service provision as they are the actual service providers, hence their behavioural inconsistency and insensitivity to patients and clients' needs they exhibit may affect service implementation.[23]

Although incentives were not found to influence continued attendance of children for growth monitoring and promotion, other studies reveals that incentives actually have a direct impact on the attendance.[17] Mosquito nets, Vitamin A or Mebendazole are the commonest incentives given in growth monitoring and promotion while food supplements are given when the child is below normal weight. The study revealed that no special incentives were given except for Mebendazole and Vitamin A during child health week which is bi-annual. Nevertheless some studies have shown that the number of children attending GM increased because of the incentives.[24,25] The main cause of the difference could be that, most of the guardians are fully aware of the importance of GM, which is

emphasized during antenatal sessions and GM clinics, when they take their children for weighing hence do not require incentives to continue attending growth monitoring and promotion.

CONCLUSION

The study results show that demographic factors including guardians' education, marital status and age influences continued attendance for children in growth monitoring and promotion. Peer associations, access to the health facility and the providers' attitudes influences guardians in health seeking behaviours in the continued attendance of children for growth monitoring and promotion. This findings are consistent with other studies done in other African countries. In tandem with the above findings and the high under-five mortality rates in the country, it can be safely concluded that growth monitoring promotion is affected by some challenges.

RECOMMENDATIONS

It is highly recommended that continued education of girls and children will have an impact in children health as they will be able to make healthier choices with age and age. Various models to improve growth monitoring programmes be sued in service delivery to improve service utilization, while mobile outreach services where health facilities are scarce can be embarked on. Provider attitudes being cardinal in service utilization need to be improve through non-monetary or monetary incentives and a good carrier guidance for would-be health workers.

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Conflict of interest

The authors declare no conflict of interest

Authors' contributions

DM and MM contributed in the study conceptualisation and design. DM conducted the field work, analysed the data. DM wrote the first draft. MM critically revised the manuscript for important intellectual concept. All authors approved the manuscript for submission.

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REFERENCES

1. Griffiths M & Rosso JD, (2007), Growth Monitoring and the Promotion of Healthy Young Child Growth: Evidence of Effectiveness and Potential to Prevent Malnutrition.
2. UNICEF (2008), Experts' Consultation on Growth Monitoring and Promotion Strategies: Program guidance for a way forward, Recommendations from a Technical Consultation UNICEF Headquarters New York, USA.
3. United Nations, (2011), Department of Economic and Social Affairs, Population Division. World Population Prospects: The 2010 Revision, CD-ROM Edition Development Research Centre.
4. Shaw, JD. (2007). World Summit for Children, 1990. 10.1057/9780230589780_25.
5. Ministry of Health, (2018), Ministry of Health growth monitoring and promotion implementation guidelines Republic of Zambia Retrieved on 16th April, 2018 at 13:01hrs.
6. Abbott Nutrition Malaysia (2017) Importance of measuring & monitoring child's growth - Pediasurehttps://pediasure.com.my/watchMeGrow/child_growt*, 2017* Retrieved on 9th may, 2018, 14:12hrs.

7. Central Statistical Office (2012), Summary of the 2010 Census population, Zambia, GRZ.
8. Nyabuti JI, (2015), Factors associated with the continuation of growth monitoring among children 10 to 59 months old in Nyamira County, Kenya. MSC Thesis, Nairobi. Retrieved on 15th April, 2018, 22:40hrs.
9. Kansiime N, Atwine D, Nuwamanya S & Bagenda F, (2017), Effects of Male Involvement On The Nutritional Status Of Children Less than 5years, Mbarara, Uganda. . Retrieved on 3rd January, 2019, 12:33hr.
10. Ajibade BL, Amoo PO, Adeleke MA, Oyadiran GO, Kolade OA & Olagunju RO, (2013), Determinants of mothers health seeking behaviour for their children in a Nigerian teaching hospital, Journal of Nursing and Health Science, vol. 1, no. 6, pp. 9–16.
11. Adamaraja SR & Tijani OM (2014), Demographic Factors as Correlates of Health – Seeking Behaviour of the People of Oyo State, Nigeria, Ghana Journal of Development Studies, Vol. 11. No 2
2. Garner P, Panpanich R &Logan S, (2000) Is routine growth monitoring effective? A systematic review of trials, Arch Dis Child 2000; 82:197–201 197, Chiang Mai University, Thailand - Published by http://adc.bmj.com/Downloaded
13. Nyabuti J I (2010), Factors associated with the continuation of growth monitoring among children 10 to 59 months old in Nyamira county, Kenya, Kenyatta University.
14. Schmitz, M F, (1996) Adolescent mental health services utilization: influences of family and social context. Retrospective Theses and Dissertations. 11337. https://lib.dr.iastate.edu/rtd/11337
15. Hoffmann R,(2017),Following the peers: The role of social networks for health care utilization in the Philippines, working papers, Vienna institute of Demography
16. Devlin RA &Rudolph-Zbarsky J ,(2014), Social networks and the probability of having a regular family doctor,Volume 115, August 2014, Pages 21-28, Social Science & Medicine, https://doi.org/10.1016/j.socscimed.2014.05.057,Elservier
17. Tekle M,Tariku B, Alagaw A, Zerihun E & Bekele HW, (2019), Exploring Reasons for Low Attendance of Mothers to Growth Monitoring and Promotion Program at Loka Abaya District, Southern Ethiopia: Exploratory Qualitative Study, Journal of Nutrition and Metabolism, vol. 2019, Article ID 3510649, 7 pages, 2019. https://doi.org/10.1155/2019/3510649
18. Lee HJ (2018), Social and Cultural contributions to mental health service utilization for Asian Americans: Expanding Andersen's behavioural Model. Doctoral Dissertation, University of Pittsburgh.
19. Yao J, Murray AT, Agadjanian V, & Hayford SR, (2011), Geographic influences on sexual and reproductive health service utilization in rural Mozambique. *Applied geography (Sevenoaks, England)*, *32*(2), 601-607.
20. Awoyemi TT, Obayelu OA &Opaluwa HI(2011) Effect of Distance on Utilization of Health Care Services in Rural Kogi State, Nigeria, Journal of Human Ecology, 35:1, 1-9, DOI: 10.1080/09709274.2011.11906385.
21. Chamileke N, (2017), Socio Demographic Determinants of Maternal Health Service Utilization among Women 15 to 49 Years in Zambezi District in Northwestern , Zambia Medical Journal of Zambia, Vol. 44, No. 3: 149-156.
22. Ceivinskas J, Gerein MM & George S, (1992), Growth Promotion for Child Development Proceedings of a colloquium held in Nyeri, Kenya, 12-13 May 1992, Canadian International Development Agency (C IDA), Cornell University, and the International Development Research Centre (IDRC).
23. Inyang MP & Doubrapade W, (2016), The Inextricable Effect of Health Worker's Attitude on Primary Health Care Implementation in South-South Nigeria, Public Health Research 2016, 6(2): 38-44 DOI: 10.5923/j.phr.20160602.02

24. Faber M, Phungula MAS, Kvalsvig JD &Benadé AJS, (2003), Acceptability of community-based growth monitoring in a rural village in South Africa.Food and Nutrition Bulletin, vol. 24, no. 4, The United Nations University Retrieved on 10th May, 2018, 22:40hrs.
25. Hurtado E, Bixcul A, Bustamante R & Santizo MC, (2008), Evaluation of the Growth Monitoring and Promotion Component of the Integrated Care for Children and Women at the Community Level (AIEPI AINM-C), from URC/Calidad en Salud; Cristina Maldonado and Iván Mendoza, from the Ministry of Health in Guatemala; and Mireya Palmieri from the Institute of Nutrition of Central America and Panama.