



Factors Influencing the Implementation of Integrated Management of Childhood Illnesses in Selected Health Center

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Abstract

The Integrated Management of Childhood Illness (IMCI) is a child health strategy developed by the World Health Organization and UNICEF aimed at reducing child morbidity and mortality. The aim of this study is to assess the number of IMCI trained healthcare workers and the effect of IMCI training on the implementation of IMCI, to identify the factors that hinders implementation of IMCI, to identify factors that promotes IMCI implementation in the selected health centers. Few studies have been carried out in Nigeria regarding IMCI implementation among healthcare workers. A random sampling technique was used for selecting ninety (90) healthcare workers and they were assessed using a questionnaire with socio-demographic data, factors that hinder the implementation and factors that promote the implementation of IMCI. Statistical analysis was done using SPSS version 17. It was deduced from the findings that majority of the healthcare workers have not received IMCI training, it was also deduced that factors such as lack of essential drugs, patients resistance to drug are some of the factors that hinders the implementation. Factors such as; increase in the provision of essential drugs, provision of charts, and training of healthcare workers are some of the factors that can promote the implementation of IMCI. The findings from this study confirmed that there is low – level of IMCI training among health care workers which is consistent with previous studies. Therefore more healthcare workers should be trained and tools and materials needed for the implementation should be made available.

Introduction

Globally, 5.9 million children under the age of 5 years died in 2015, with the death of 16,000 children each day. The risk of losing a child before reaching 5 years of age is highest in African Region (81 per 1,000 live births) which is seven (7) times more than the European Region (11 per 1,000 live births) (World Health Organization, 2015). In Nigeria, about 2,300 under-five children dies every day. Recent analyses have shown that Nigeria is making progress in reducing fewer than 5 mortality rates (UNICEF 2013).

According to World Health Organization (WHO) (2010), and United Nations International Children's Fund (UNICEF) in 1990s came up with Integrated Management of Childhood Illness (IMCI) to reduce child mortality and morbidity which are associated with the major causes of illness in children under 5 years. IMCI is a set of integrated guidelines or treatment instead of separate treatment for each illness which can affect a child. IMCI is an integrated approach to child health that focuses on the health of the whole child. In the practice of IMCI, child's illness is classified according to severity with the use of algorithms. It deals with both the prevention and treatment of illness. IMCI has been adopted in over 100 countries, including Nigeria.

IMCI strategy pertains to improve:

- Case management skills, of health workers through the provision of clinical guidelines on the integrated management of childhood illness, adapted to the local context, and training to promote their use;
- Health system support,
 - Ensuring the availability of essential drugs and other supplies
 - Improving the organization of work at the health facility level
 - Improving monitoring and supervision;

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- Family and community practices for child health and development; this component of IMCI aims to introduce and continue practices in the family or family practices which are important for survival, growth and development of children.

Background of study

Primary Health Care (PHC) was introduced by Limpopo Province to overcome the health challenges of the people by the year 2000. Primary Health Care Nurses (PHCNS) were made available at numerous clinics to meet these needs. Regardless of all these efforts, the challenges of providing care to children under-five years remained, particularly in the face of childhood illnesses such as Diarrhea, Acute Respiratory Infection, Malaria, Measles and Malnutrition (DAMMM). A gap was identified in the training of the PHCNS as it did not prepare PHCNS sufficiently to manage children below five regarding DAMMM [1]. In response to this challenge, WHO and UNICEF in the early 1990s developed Integrated Management of Childhood Illness (IMCI), a strategy designed to reduce child mortality and morbidity in developing countries. The approach focuses on the major causes of deaths in children through improving case management skills of health workers, strengthening the health system, and addressing family and community practices [2].

The IMCI strategy has been shown to improve care for ill children by assessing and classifying the sick children below five years of age by using standardized algorithms and instituting treatment in outpatient settings in developing countries. A central component of the strategy is an 11-days in-service training course for Health Care Workers (HCWs) on IMCI clinical guidelines. The 11-days course duration is recommended by the WHO, which developed IMCI [3]. In some countries, the course has been shortened to reduce training costs and the time HCWs are away from their clinics during training [4,5].

A study by Walter et al. [6] conducted in Tanzania on the use of IMCI guidelines in the assessment of children with severe diseases, the findings revealed that majority of the HCWs did not adhere to IMCI protocols, neither did they assess the sick children using the IMCI holistic approach and ended up treating the sick child for one classification only, nor did the HCWs refer these sick children to hospitals. It was also revealed that they did not give broad spectrum antibiotics because they felt it was nonessential.

According to Ejidike [7] IMCI implementation was been shown to be affected by lack of sufficient trained IMCI health workers which has made it difficult for the health care to reach every child in the community and even in the health care system, the non availability of funds and the proportion of IMCI trained health care workers to non IMCI trained healthcare workers. Also, the non availability of professional aids such as wall charts and chart booklets [8]. Where there is no aid for the health workers, the nurses will have to improvise materials when a sick child is being taken care of. Improvising materials may delay the care and may affect the result of the care given by the health care professional. Nurses prefer to follow other guideline than the IMCI for quick and fast delivery of care to save time and life and emergency drugs according to IMCI recommended list were not usually available in the pediatric unit [8,9].

According to WHO 2015, there are three main challenges today to the implementation of IMCI which are: How to deliver existing, effective interventions which are part of IMCI to those who need them most in the community, especially the most vulnerable; How to accelerate implementation to reach maximum coverage

while sustaining the achievements made and keeping the quality of interventions and how to maintain political support and make resources available to support implementation [10-12].

Materials and Methods

This study follows a descriptive quantitative approach using a non-probability purposive sampling technique that employs the use of self administered paper – pencil questionnaire and focus on healthcare workers in some selected public health centers in Ado-Ekiti to access the factors that influences the implementation of IMCI. The study was conducted in two health centers in Ekiti State, which are Oke-iyimi Comprehensive Health center, and Odo-Ado health center. The health center is located in Ado-Ekiti, Ado Local government. The health center have Nurses/Midwives, Community Health Extension Workers and Health Attendants.

The sample size was calculated using Yamane Taro's formula for the study was 90 health care workers who work At Oke-iyinmi Comprehensive Health Center and Odo-Ado Health Center, Ado-Ekiti, Ekiti State.

The sample size for this study was calculated using Yamane Taro's formula.

Data was analyzed using SPSS software version 17. Descriptive statistics will be summarized in percentages. Categorical data was tested for significance using Chi-square. Three broad principles, namely; beneficence, respect for human dignity and justice on which standards of ethical conduct research are based were followed to ensure codes of Ethics and good practice for the protection of the participants.

Result

The table below shows content representing the socio-demographic characteristics of study participants, in arrangements as presented on the questionnaire, thus this include; Age, Gender, Health Center, Years of Experience and Cadre.

Table 1 Shows selected demographic characteristics of participants, from the 100 patients recruited, majority of the participants (37.8%) were 30 to 35 years of age. The vast majority of the participants were females (84.4%), while 15.6% were Males. Most of the participants (50%) have 3 to 10 years of experience while minorities have more than 15years of experience. Also, majority of participants were SCHEW (41.1%), while JCHEW were 25.6%, Mid-Wife were 13.3%, Nurses were 11.1% and others were 8%.

Table 2 shows majority of the participants (56.7%) were IMCI trained and 43.3% were not trained in IMCI which is similar to the findings from similar studies [13]. it also reveals that 32.2% had their IMCI training less than 2 years ago while 13.3% had theirs 3 to 5 years ago and 11.1% also had theirs 6 to 10 years ago. It reveals that the majority of participants 23.4% were trained for 11 days, which is according to the WHO training strategy for IMCI; 22.2% were trained less than 11 days and 13.3% of participants were trained for more than 11 days. The table reveals that the majority of participants 23.4% were trained for 11 days, which is according to the WHO training strategy for IMCI; 22.2% were trained less than 11 days and 13.3% of participants were trained for more than 11 days. It was shown that none of the participants (0%) has received any refresher's course and the majority (61.2%) has not received any refresher's course which is part of WHO strategy [14].

Table 1: Showing socio-demographic characteristics of respondents.

Variable	Frequency	Percentage (%)
AGE		
20-25	9	10
25-30	20	22.2
30-35	34	37.8
35 and above	27	30
Total	90	100
Gender		
Male	14	15.6
Female	76	84.4
Total	90	100
Health Center		
Okeyinmi	44	48.9
Odo-Ado	46	51.1
Total	90	100
Years of Experience		
<2 yrs	14	15.6
3-10 yrs	45	50
10-15 yr	21	23.3
>15 yrs	10	11.1
TOTAL	90	100
CADRE		
JCHEW	23	25.6
SCHEW	37	41.1
Mid-Wife	12	13.3
Nurse	10	11.1
Others	8	8.9
Total	90	100

Table 3 reveals that majority of the participants (56.7%) sees the IMCI helpful in the care of children less than 5 years of age and the minority 10% said the IMCI training wasn't helpful. Forty-four percent of the participants have seen improvement in the reduction of child mortality after training. the highest competency rating on the scale 0-10 was '8' with 16.7% of the participants, none of the participants rated themselves 0, 1 and 2 on the scale and the minority (1%) rated themselves 3 and 5 on the scale.

Table 4 reveals that majority of the participants (32%) said that only 6% to 25% of the healthcare workers are trained in their health care facility. Also majority said that the workload has influenced the provision of quality care to <5 years children and that the ratio of IMCI trained healthcare worker to clients affect the implementation of IMCI.

Table 5 reveals that majority of the participants express that lack of allocation from the government hinders the implementation of IMCI while 43.3% expressed that patient's resistance to IMCI recommended drug hinders the implementation and 47.8% expressed that Shortage of essential drugs is also a factor that hinders implementation of IMCI.

It was deduced from the findings that shortage of essential drugs according to the IMCI recommended list were not usually available

Table 2: Shows the number of participants that have received IMCI training, the time the training was received, duration of training and whether refresher's course has been received.

Participants that have Received IMCI Training	Frequency	Percentage
Yes	51	56.7
No	39	43.3
Total	90	100
When Participants Received IMCI Training	Frequency	Percentage
<2 yrs	29	32.2
3-5 yrs	12	13.3
6-10 yrs	10	11.1
Not Trained	39	35.5
Total	90	100
Duration of Training	Frequency	Percentage
<11 Days	12	13.3
11 Days	21	23.4
>11 Days	18	20
None	39	43.3
Total	90	100
I Have Received Refresher's Course	Frequency	Percentage
Yes	0	0
No	51	56.7
Not Trained	39	43.3
Total	90	100

Table 3: Reveals the effectiveness of the IMCI training in the provision of care to <5 years children.

	Frequency	Percentage (%)	
The IMCI Training Was Well Understood	Yes	47	52.2
	No	4	4.4
	Not Trained	39	43.3
	Total	90	100
The Training was Helpful in the Care to Children <5 years	YES	51	56.7
	No	29	32.3
	Total	60	100
After Training, Have Seen Improvement in the Reduction of Child Mortality	Yes	40	44.4
	No	11	13.4
	Not Trained	39	43.3
	Total	90	100
Competency Rating	3	1	1.1
	4	4	4.4
	5	5	5.6
	6	3	3.3
	7	8	8.9
	8	15	16.7
	9	8	8.9
	10	7	7.8
	Not Trained	39	43.3
	Total	90	100

Table 4: Reveals the percentage of healthcare workers that have received IMCI training.

		Frequency	Percentage (%)
Percentage of workers that are IMCI trained	less than 5%	6	6.7
	6% - 25%	32	35.6
	26% - 45%	13	14.4
	46% - 65%	5	5.6
	65% - 80%	5	5.6
	Total	61	67.8
The workload has influenced the provision of quality care to <5 years children	Yes	39	43.3
	No	18	20
	Total	57	63.3
The ratio of IMCI trained healthcare worker to clients affect the implementation of IMCI	Strongly agree	13	14.4
	Agree	34	37.8
	Disagree	10	11.1
	Strongly disagree	3	3.3
	TOTAL	60	66.7

Table 5: Showing the factors that hinders the implementation of IMCI.

	Factors	Frequency	Percentage (%)
1	Patient's resistance to IMCI recommended drug?	39	43.3
2	Shortage of essential Drugs?	43	47.8
3	The approach is not effective?	22	24.4
4	Lack of allocation for IMCI implementation from the government	46	51.1
5	Lack of professional aids such as wall charts and chart booklets	39	43.3
6	Shortage of healthcare workers that has received IMCI training	42	46.7
7	Long time for the implementation due to long guidelines	40	44.4
8	The IMCI guideline is boring	18	20
9	Poor parents or guardians compliance	36	40
10	Lack of motivation	29	32.2

in the health centre which has made management difficult and ineffective. Also similar to the findings from a similar studies it was also deduced that inadequate provisional aids like wall charts and chart booklets is one of the factors that hinders the implementation of IMCI.

In contrast to the findings from similar studies, these studies found out that healthcare worker believe that, patients are resistance to IMCI recommended drugs. This factor has made most healthcare workers to decide not to make use of the recommended drugs because the drugs are no longer effective in the management of some diseases.

Other factors that hinder the implementation of IMCI are; lack of allocation for IMCI implementation from the government, shortage of healthcare workers trained in IMCI, long time for the implementation due to long guidelines, poor parent's compliance. Poor parent's compliance is also a major factor that affects the implementation of IMCI; parents feel the healthcare worker is not effective if he or she has to look at books before attending to the client, they feel the healthcare worker is not competent. Also, the long time needed for the implementation of IMCI which is similar to similar studies [15,16]. The healthcare workers feels the long time needed

Table 6: Showing the factors that promote the implementation of IMCI in their health facilities.

Factors	Frequency	Percentage (%)
Increase in the number healthcare workers?	53	58.9
Supply of many guidelines and chart booklets for each health care workers	59	65.6
Increase in the provision of essential drugs	59	65.6
Review and update of the IMCI guidelines in line with the latest drugs	61	67.8
Refresher courses and on-site monitoring should be done	58	64.4
IMCI training should be offered to all health care workers and adequate tools should be provided	59	65.6

to implement IMCI using the guideline affects the use of the IMCI guidelines in the treatment of childhood illnesses.

Table 6 shows that 61% of the participants which is the majority expressed that review and update of the IMCI guidelines in line with the latest drugs is a factor that can promote IMCI implementation, 59% also stated that IMCI training should be offered to all health care workers and adequate tools should be provided, there should be increase in the provision of essential drugs and that there should be increase in the supply of many guidelines and chart booklets for each health care workers.

It is of high importance to denote that this findings has established the fact that IMCI training has greatly influenced the provision of care to children under 5 years and has reduced the rate of under 5 years mortality which is one of the major reason for the establishment of IMCI strategy, it is also similar to the findings from Goga report on the multi-country survey, IMCI implementation in South Africa which revealed that HCWs found training beneficial. Majority of the healthcare workers expressed that just 6% to 25% of their staff has received IMCI training. Therefore 65.6% of the participants said that IMCI training should be offered to more healthcare workers with the provision of adequate tools.

Moreover, review and update of the IMCI guidelines in line with the latest drugs can promote the implementation of IMCI. Refresher courses and on-site monitoring should be done also, as it encourages the healthcare workers to continue the use of IMCI in the care of under 5 year's children.

Increase in the number of healthcare workers is also essential in the promotion of IMCI implementation [14]. Most of the participants expressed that the workload hinders them from the use of IMCI strategy. Therefore an increase in the number of healthcare worker on duty per each shift should be increased for effective implementation of IMCI which is also similar to related studies [13,17].

Conclusion

The IMCI program is regarded as an effective strategy by the participants. Some factors have been identified from this study that stands as a barrier to the implementation of IMCI some of these includes; lack of supervision, insufficient number of trained health care workers, no refresher courses for health care workers who have been trained on IMCI shortage of essential drug and supplies in all the health facilities. It has been established that IMCI training has helped healthcare workers in their provision of care to children below 5 years, healthcare workers who are not trained should ensure they undergo this training to improve their effectiveness in the care of new born and also to reduce the rate of child mortality from the child killer diseases.

The findings from this study confirmed that there is need for increased IMCI training among health care workers which is consistent with previous studies. Therefore more healthcare workers should be trained and tools and materials needed for the implementation should be made available. Government should also sponsor the training of healthcare workers; nurses and doctors inclusive. IMCI training can be inculcated to the curriculum of health care workers in school, for SCHEW, JSCHW, nurses, doctors, etc. Adding it to the curriculum will give the assurance that no healthcare worker having contact with client is going out to the healthcare system without having a full knowledge of IMCI.

This study is limited to just few health centers in Ekiti state. Also, this study is limited to just the health workers in few health centers. It is limited to time, place and person.

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