

COVERAGE OF IMNCI IN DISTRICT ABBOTTABAD, PAKISTAN

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ABSTRACT

BACKGROUND: IMNCI is a systemic approach to children's health, which focuses on the child as a whole, rather than on a single disease or condition. This study focuses on the coverage of IMNCI in terms of trained staff, their knowledge and practice and resource availability in district Abbottabad.

METHODS: All trained staff, 23 in number, from 16 randomly selected Basic Health Units (BHUs) were studied from 10 March to 9 September 2015. A self administered questionnaire was provided to the health care workers of randomly selected BHUs to assess their knowledge, practice and resources regarding IMNCI. Results were calculated as frequency using SPSS version 20.

RESULTS: 17 BHUs were visited out of which the medical officer incharge of 1 BHU was not willing to participate. 2 BHUs did not even have a single trained health care worker. Out of total 23 respondents 5 were doctors, 6 were lady health visitors and 12 were medical technicians. Over all knowledge and practice of IMNCI among respondents was good but still some respondents failed to communicate their knowledge and practice.

CONCLUSION: Very few health care workers lack knowledge regarding IMNCI. This issue needs to be addressed through appropriate training workshops and seminars, developing and strengthening skills, competencies and capacity building by the management.

KEY WORDS: WHO, UNICEF, Health Care Worker.

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Received: Oct 1, 2016, Revised: Oct 18, 2017, Accepted: Oct 20, 2017

INTRODUCTION

Every year about more than 10 million children die before reaching their fifth birthday^{1,2}, mostly from pneumonia, diarrhea, malaria, measles and also underlying malnutrition^{3,4,5,6,7} in developing countries. Out of these 10 million, 4 million deaths account for neonates (0-27 days)^{8,9,10} and remaining 6 million account for children between 1 month to 5 years⁹.

Infant and child mortality are the signs of inequity and poverty. Experience and evidence show that rather than focusing on complicated and high cost technology, one should focus on effective strategy that can improve not only this current mor-

tality situation but also work for the betterment of health system as well as take into account the traditions and beliefs in a community.

Thus in 1996 World Health Organization (WHO) and United Nation International Children Emergency Fund (UNICEF) collaborated and used above mentioned findings to develop and promote evidence based simple, effective, low cost, strategy called Integrated Management of Childhood Illness (IMCI)^{2,7,8,11}. This strategy was expanded in India and Pakistan as well to include all neonates and was renamed as Integrated Management of Neonatal and Childhood Illness (IMNCI)^{11,12,13}. IMNCI is a systematic

approach to children's health, which focuses on the child as a whole, rather than on a single disease or condition¹².

IMNCI strategy includes preventive and curative plans to reduce the child mortality and also work for the improvement of health system⁷.

A multi country evaluation (MCE) for IMNCI began in 1997³ to find out the nutritional, behavioral and mortality impact of this strategy and also measure its low cost-effectiveness. MCE-IMNCI included Bangladesh, Brazil, Peru, Tanzania and Uganda. By the end of 2004, a total of 100 countries reported having completed a national adaptation of the IMNCI case management guidelines for first-level health facilities.

South-East-Asia lack socio-economic and health indicators due to which this area accounts for one-third¹⁴ of world's mortality of neonates and children under age of 5 years. Pakistan is one of these South Asian countries where IMNCI was introduced in 1998¹³. Since then a lot of hard work has been done by Paediatricians and health workers to implement this strategy in the present health system.

Before IMNCI was introduced the world mortality rate was very high and other strategies were not working up to the mark but IMNCI made a remarkable change in this condition. Even though IMNCI is a better strategy there are still deficiencies in its implementation. Health workers (Paediatricians, medical officers, lady health workers, health technicians, and dispensers attached to IMNCI implementing facilities) are not properly trained and lack knowledge about case management according to IMNCI protocol.

The purpose of exposing the idea of following the IMNCI strategy worldwide is that it presents an opportunity for different countries to update the policies for case management of sick children, because it acts as the catalyst for identification of substantial weakness in the world. Although IMNCI consultations take longer, IMNCI has shown to be efficient and low cost than routine

care in some settings. This study was conducted to assess the knowledge and practices of health care workers regarding IMNCI and availability of IMNCI resources like recording forms, chart booklets, human resource, Vitamin A and Oral Rehydrating Salt (ORS) at BHUs in District Abbottabad.

MATERIAL & METHODS

This Descriptive cross-sectional study was conducted over a period of six months (10th March -9th Sept 2015) 17 out of 55 (30%) Basic Health

Units (BHUs) from district Abbottabad were selected through systematic random sampling from each of the two tehsils. All the health care workers who were trained in 11 days IMNCI training program were included. All individuals from a specific health facility where incharge did not consent, were excluded. Those trained health workers who refused to participate were also excluded. A total of 16 BHUs and 23 HCWs were studied. A structured questionnaire and a check list were used for data collection.

Data were analyzed using SPSS

version 20. Ethical approval was granted by Ethical Committee of Women Medical College Abbottabad.

DISCUSSION

IMNCI is a systemic approach that focuses on the health of children. This protocol does not involve any expensive equipment's or medication that a developing country will not be able to afford. It only requires the practice and knowledge of the workers in this system⁶. Majority of the trained participants in this research were Medical Technicians and only few were doctors (Fig 1). Usually doctors turnover is more frequent than other auxiliary staff because of promotions, higher education and being influential to join the health facility or offices of their choice¹⁵. More than half of the study participants had correct knowledge and practice of the IMCI protocol. Though very few participants could not understand some important protocols like diarrhea management plan, this could not be explained quantitatively but should be considered as an important issue. If a single person is not able to classify and manage a condition, it will put many children at risk.

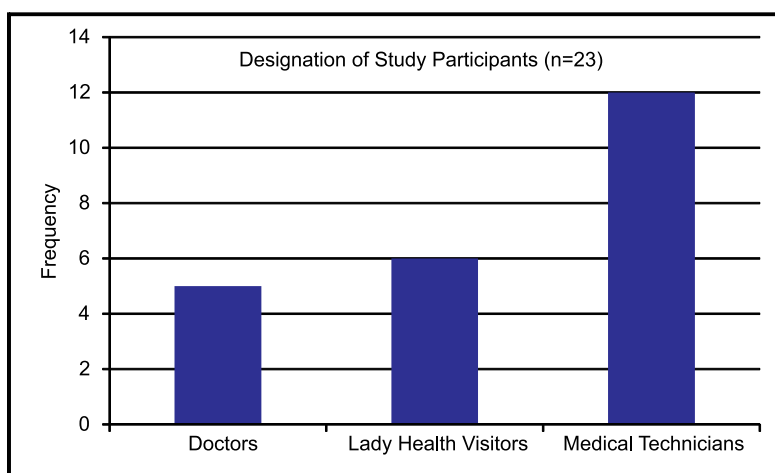


Figure 1:

TABLE 1: KNOWLEDGE & PRACTICES OF HEALTH CARE WORKERS REGARDING IMNCI PROTOCOL(N=23)

Question/activity	Correctly identified/performed	Failed to identify/perform
Identification of a danger sign	15	8
Interpretation of Red, Yellow and Green colors on chart booklet	22	1
Treatment plans for No, Some and severe dehydration	14	9
Identification of pneumonia	17	6
Counsels the mother	22	1
Follow up time for Malaria	12	11

TABLE 2: RESOURCES AVAILABILITY AT BHUS(N=16)

Resource detail	Yes	No
Medical officer present in the BHU at the time of Visit	9	7
IMNCI chart booklets available	8	8
Malaria Supervisor present	6	10
Sufficient quantity of ORS	12	4
Sufficient quantity of Vit A	8	8

Along with the assessment of knowledge and practice of health care workers in different BHUs, we also assessed the availability of resources in selected sixteen BHUs. Non availability of Vit A, chart booklets and Malaria supervisor were main issues identified. Medical Officer (MO) is the head of a BHU and his presence in working hour is mandatory. Out of all BHUs that we visited, MOs were present in only 9 BHUs during duty time. Chart booklet for IMNCI has all the basic information about IMNCI like classification and treatment. Only eight, BHUs had chart booklets.

Malaria is one of the diseases that is being dealt by the IMNCI strategy that is why malaria supervisor should be available at all times in a BHU and according to our research only six BHUs had malaria supervisor. ORS is an important part of treatment plan for dehydration associated with diarrhea. Only twelve BHUs had sufficient quantity of ORS. While sufficient quantity of Vitamin A was available only in half of the BHUs.

IMNCI training should be made mandatory for the medical officers before appointing them in the BHUs as they are mostly responsible for under five consultations. Also more malaria supervisors should be appointed in BHUs. Refresher seminars and workshops on IMNCI for health care workers should be held more frequently as to keep their knowledge up to date.

CONCLUSION

BHUs are meant to provide primary health care that is why basic facilities and health care workers fully trained in IMNCI should be available in BHUs at all time. In our research we observed that among all the health care workers of BHUs, medical technicians were mostly trained but medical officers on the other hand were not trained. Availability of basic resources and facilities in BHUs were rather satisfactory. In most of the BHUs medical officers and malarial supervisor were not even appointed.

REFERENCES

- Haines A, Sanders D, Lehmann U, Rowe AK, Lawn JE, Jan S et al. Achieving child survival goals: potential contribution of community health workers. *The Lancet*. 2007 Jun 29;369(9579):2121-31.
- Schellenberg JR, Adam T, Mshinda H, Masanja H, Kabadi G, Mukasa O, et al. Effectiveness and cost of facility-based Integrated Management of Childhood Illness (IMCI) in Tanzania. *The Lancet*. 2004 Nov 5;364(9445):1583-94.
- Arifeen SE, Hoque DE, Akter T, Rahman M, Hoque ME, Begum K, et al. Effect of the Integrated Management of Childhood Illness strategy on childhood mortality and nutrition in a rural area in Bangladesh: a cluster randomised trial. *The Lancet*. 2009 Aug 7;374(9687):393-403.
- El Arifeen S, Blum LS, Hoque DE, Chowdhury EK, Khan R, Black RE, et al. Integrated Management of Childhood Illness (IMCI) in Bangladesh: early findings from a cluster-randomised study. *The Lancet*. 2004 Nov 5;364(9445):1593-602.
- Lambrechts T, Bryce J, Orinda V. Integrated management of childhood illness: a summary of first experiences. *Bulletin of the world health organization* 1999;77(7):582-94
- Raina N, Patwari A.K. Integrated management of childhood illness (IMCI) : A Robust strategy. *Indian Journal of Pediatrics* 2002 ; 69:41-48
- Huicho L, Dávila M, Campos M, Drabek C, Bryce J, Victora CG. Scaling up integrated management of childhood illness to the national level: achievements and challenges in Peru. *Health policy and planning*. 2005 Jan 1;20(1):14-24.
- Bryce J, Victora CG, Habicht JP, Black RE, Scherpbier RW. Programmatic pathways to child survival: results of a multi-country evaluation of Integrated Management of Childhood Illness. *Health policy and planning*. 2005 Dec 1;20(suppl 1):i5-17.
- Kerber KJ, de Graft-Johnson JE, Bhutta ZA, Okong P, Starrs A, Lawn JE. Continuum of care for maternal, newborn, and child health: from slogan to service delivery. *The Lancet*. 2007 Oct 19;370(9595):1358-69.
- Knippenberg R, Lawn JE, Darmstadt GL, Begkoyian G, Fogstad H, Waleign N, Paul VK, Lancet Neonatal Survival Steering Team. Systematic scaling up of neonatal care in countries. *The Lancet*. 2005 Mar 25;365(9464):1087-98.
- Shewade HD, Aggarwal AK, Bharti B. Integrated Management of Neonatal and Childhood Illness (IMNCI): skill assessment of health and Integrated Child Development Scheme (ICDS) workers to classify sick under-five children. *The Indian Journal of Pediatrics*. 2013 Jun 1;80(6):448-54.
- Bhandari N, Mazumder S, Taneja S, Sommerfelt H, Strand TA. Effect of implementation of Integrated Management of Neonatal and Childhood Illness (IMNCI) programme on neonatal and infant mortality: cluster randomised controlled trial. *Bmj*. 2012 Mar 21;344:e1634.
- Venkatachalam J, Kumar D, Gupta M, Aggarwal AK. Knowledge and skills of primary health care workers trained on integrated management of neonatal and childhood illness: Follow-up assessment 3 years after the training. *Indian journal of public health*. 2011 Oct 1;55(4):298.
- Atun R, de Jongh TE, Secci FV, Ohiri K, Adeyi O, Car J. Integration of priority population, health and nutrition interventions into health systems: systematic review. *BMC public health*. 2011 Oct 10;11(1):1.
- Schaaf M, Freedman LP. Unmasking the open secret of posting and transfer practices in the health sector. *Health policy and planning*. 2015 Feb 1;30(1):121-30.

CONFLICT OF INTEREST

Authors declared no conflict of interest

GRANT SUPPORT AND FINANCIAL DISCLOSURE

NIL

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.