



## Original Article

## Knowledge Attitude and Practices of Healthcare Service Providers about Minimum Service Delivery Standards

 Shafiq ur Rehman<sup>1\*</sup>, Tallat Anwar Faridi<sup>2</sup>, Sajid Hameed<sup>2</sup>, Raza Ali Shan<sup>3</sup>, Sarosh Malik<sup>4</sup>
<sup>1</sup>Punjab Health Care Commission, Regional Office, Multan, Pakistan

<sup>2</sup>University Institute of Public Health, The University of Lahore, Pakistan

<sup>3</sup>Al -Rehman Hospital, Fazilpur, Pakistan

<sup>4</sup>University Institute of Radiological Sciences and Medical Imaging Technology, The University of Lahore, Pakistan

## ARTICLE INFO

## Key Words:

MSDS, Healthcare service providers, KAP, Punjab Healthcare Commission, Healthcare providers

## How to Cite:

 Rehman, S. ur ., Anwar Faridi, T. ., Hameed, S. ., Ali Shan, R. ., & Malik, S. . (2022). Knowledge Attitude and Practices of Healthcare Service Providers About Minimum Service Delivery Standards: Knowledge Attitude and Practices of Healthcare Service. *Pakistan BioMedical Journal*, 5(8). <https://doi.org/10.54393/pbmj.v5i8.737>

## \*Corresponding Author:

 Shafiq ur Rehman  
 Punjab health care commission, Regional Office  
 Multan, Pakistan  
[Shafiq.rehmanmughal@gmail.com](mailto:Shafiq.rehmanmughal@gmail.com)
Received Date: 5<sup>th</sup> August, 2022Acceptance Date: 17<sup>th</sup> August, 2022Published Date: 31<sup>st</sup> August, 2022

## ABSTRACT

Worldwide Health care services are provided and regulated as well as monitored by applying standard regimens. It is pivotal for patient health, safety and efficient treatment and health services provision. **Objective:** To assess the knowledge, attitude and Practices of healthcare service providers about Minimum Service Delivery Standards. **Methods:** It is a cross sectional study in which questionnaire was developed to study minimum service delivery provision towards patients by professional health care providers. A complete Performa was filled by interviewing doctors (MBBS), dentists, nurses, dispensers and para medical staff working at BHUs and RHCs. The data was collected after informed consent following ethical considerations and guidelines by University of Lahore. The data was entered and analyzed using SPSS version 22. **Results:** The results show the good knowledge of HCPs was resounded in lowest parameter of 1.5% while poor knowledge was scored 95.5%. The attitude of HCPs toward was recorded the positive attitude 58.3% neutral 40.2% while negative attitude 1.5%. the Practices of MSDS at health facility was scored good Practices 4.9% Satisfactory Practices was recorded 0.4% while poor Practices of MSDS was recorded 94.7%. **Conclusion:** Using MSDS parameter the one can create a better environment of health care to patients. The medical and para medical staff should meet all standards assured in the current study to make a better place for the sake of health and treatment.

## INTRODUCTION

In all over the world healthcare delivery services are regulated by applying standardization regimens to improve the quality of healthcare services [1]. Regulation of Healthcare services delivery system is pivotal for patient safety and quality assurance & improvement [2]. Health is an utmost need of every person and it is the primary responsibility of provincial government to provide quality of healthcare services for their population. The Government of Punjab has established an elaborate system of healthcare facilities including a network of about 49 teaching hospitals, 26 DHQ Hospitals, 128 THQ Hospitals 318

RHCs, 2506 BHUs and 188 MCHC centers [1]. In 2010 an enactment to regulate the healthcare delivery services in public as well as private sector was endorsed in Punjab province of Pakistan. PHC is mandated to improve the quality of healthcare services through enforcement of service delivery standards in public and private sector. In order to facilitate the healthcare establishments, The PHC has introduced according to category specific and their scope of work [3]. PHC categorize Healthcare establishments are as, Cat-I Hospitals having more than 50 indoor bed strength, Cat-II-A Hospital having 31-49 indoor

Bed strength, Cat-II-B Hospitals 16-30 indoor Bed strength, Cat-II-C HCE 01-15 indoor Bed strength and Cat-III HCEs day care centers (OPD services only) [4,5]. PHC maneuver MSDS according to categories besides different in numbers as per their scope of work, The RHC is consist of 20 indoor beds and fall in category-II C and MSDS for RHC comprise of 10 functional areas 28 standards and 95 indicators [5]. While BHU is consist of 02-03 beds for only short admissions of patients to provide day care services and fall in Cat-III. So the MSDS for BHUs is comprise of 10 functional areas, 24 Standards and 75 indicators to improve the quality of healthcare services as per their service delivery packages [6,7]. The BHUs and RHCs mainly provide primary healthcare services at the door step of community. Approximately the RHCs and BHUs are providing services to about 80 Million patients per annum in Punjab [8]. A huge number of patient turn over on these facilities. So implementation of these service delivery standards can play important role to expand the service delivery structure [3]. There should be a mechanism of pre service and in service training of all medical professionals through health institutions [8]. The Service delivery standards may also be included in the Syllabus of health professionals. Furthermore, the teaching institutes and health department should conduct capacity building workshops of newly inducted doctors and allied health professionals and refresher trainings over a period of time [9]. It is a matter of quality assurance, quality improvement and patient safety [10]. Enforcement of these quality standards is also another challenge for the authorities as there are certain factors which may contribute in poor compliance for implementation of these standards. It may be lack of awareness of service providers about standards, hesitant arrogant behavior, misconceptions, political and socio-economic factors etc [11,12]. In 2010 the Punjab Healthcare Commission Act was passed, which mandates the Commission to improve the quality of services and regulate the health care establishments by implementing service delivery standards with the objective to eliminate avoidable errors in clinical and patient management areas, it is mandatory for all health care service providers to comply with MSDS to get the license from PHC [7,13,14]. The Punjab Healthcare Commission has started orientation program and trained only 02 healthcare service providers on MSDS from each RHCs and BHUs in Punjab and also provide MSDS reference manuals to facilitate the implementation of MSDS. But there is huge turn over regarding transfer posting of service providers at these facilities and frequent induction of doctors and Paramedics on regular basis. There is also no periodic and regular mechanism to monitor the implementation of MSDS by health facility in charge and District health

management team. There is no long term solution to sustain the implementation of these standards on these healthcare facilities [15,16]. There is a dearth about Minimum Service Delivery Standards awareness of Healthcare service providers working at Rural Health centers and Basic Health Units [17,18]. Although the Punjab Healthcare Commission has started orientation program and trained only 02 healthcare service providers on MSDS from each RHCs and BHUs in Punjab and also provide MSDS reference manuals to facilitate the implementation of MSDS [19]. There is huge turn over regarding transfer posting of service providers at these facilities and frequent induction of doctors and Paramedics on regular basis [20]. There is also no periodic and regular mechanism to monitor the implementation of MSDS by health facility in charge and District health management team. There is no long term solution to sustain the implementation of these standards on these healthcare facilities [17-21].

## METHODS

It is a cross sectional study in which questionnaire was developed to study minimum service delivery provision towards patients by professional health care providers. A complete Performa was filled by interviewing doctors (MBBS), dentists, nurses, dispensers and para medical staff working at BHUs and RHCs of District D.G. Khan. A self-administrated questionnaire is developed and validated by conducting pilot study on 15 healthcare service providers. The knowledge, attitude and practices construct will be measured using 15-item from yes to no answers 0-15 score. The data was collected after informed consent following ethical considerations and guidelines by University of Lahore. The data was entered and analyzed using SPSS version 22. The numeric data was summarized using descriptive statistics (mean and standard deviation). The categorical data like knowledge of MSDS was summarized using frequency and percentages.

## RESULTS

A questionnaire was developed with basic vitals of gender, age, qualification, designation and Type of HCE. This questionnaire was based on three main portions and each portion was filled carefully, which are: Knowledge, Attitude, Practices. Every part of questionnaire was consisting of 15 questions. Result of this pilot study analyzed using Cronbach's alpha value. More than 12 correct answers measure Good Knowledge (80%). More than 9-11 correct answers measure satisfactory knowledge (60-79%) and below 9 correct answers measures poor knowledge (below 60%).

Variables	No. of Questions	Sum of variances of questions	variances of total score	Cronbach's alpha value
Knowledge	15	1.70	6.36	0.7852
Attitude	15	1.32	5.00	0.7874
Practices	15	0.98	2.40	0.6346

**Table 1:** Cronbach's Values

HCE Type	Frequency(%)
BHU	128(48.5%)
RHC	136(51.5%)
Total	264(100.0%)

**Table 2:** The HCE type wise frequency of Healthcare Service Providers

There were 264 HCSP in this study in which 128 (48%) HCSP from BHUs and 136 (52%) HCSP from RHCs.

Qualification	Frequency(%)
MBBS	70(26.5%)
BDS	6(2.3%)
Nursing	19(7.2%)
Para medical staff	169(64.0%)
Total	264(100%)

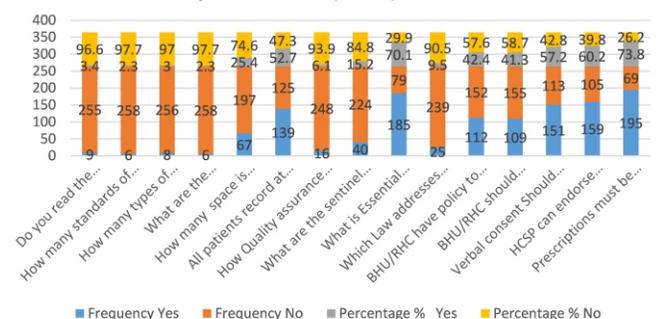
**Table 3:** The Qualification wise frequency of Healthcare Service Providers

There were 264 HCSP in which 70 (26.5%) MBBS, 06 (2.3%) Dental surgeons, 19 (7.2%) Nurses and 169 (64.0%) paramedical staff

Knowledge	Frequency(%)	Good	Satisfactory	Poor
		4(1.5%)	8(3%)	252(95.5%)
Attitude	Frequency(%)	Negative	Neutral	Positive
		4(1.5%)	106(40.2%)	154(58.3%)
Practice	Frequency(%)	Good	Satisfactory	Poor
		13(4.9%)	1(0.4%)	250(94.7%)

**Table 4:** The frequency and percentage of Healthcare Service Providers Knowledge, Attitude and Practices of MSDS

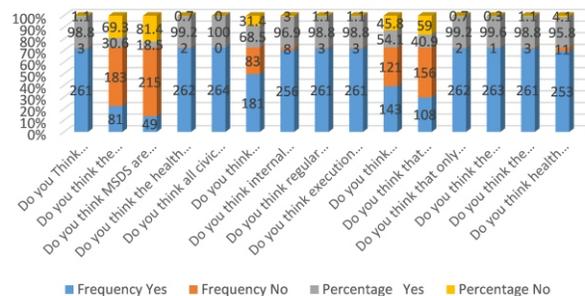
The study on 264 HCSP reveals that 1.5% good, 03% Satisfactory and 95.5% poor knowledge, 1.5% Negative, 40.2% Neutral and 58.3% Positive attitude. 4.9% good, 0.4% Satisfactory and 94.7% poor practices of MSDS.



**Figure 1:** The comparison of frequency and percentage of Knowledge of HCSP about MSDS

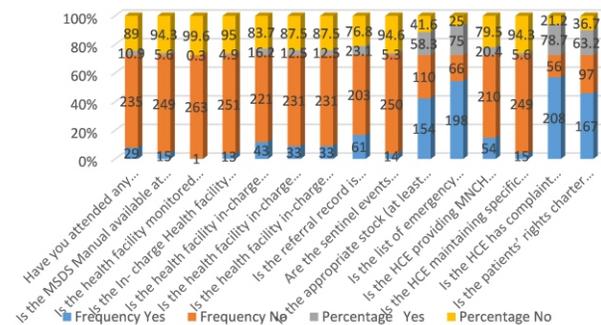
Multiple questions were asked from health service providers from this section "Knowledge". These questions were about MSDS, their number and types, compliance requirement, quality assurance, domicile policy, verbal and

endorse form consent. And most important question was done that was prescriptions are reviewed and stamped by medical officers or not. When professional HCPs were asked 15 different questions to judge their knowledge grip on provision of skills and MSDS to the patients, it was noticed that they had least knowledge about MSDS and health care facilities. Their response was least recorded at question in which it was asked that "do you know how many standards are there for BHU" only 2.27% HCPs were aware to it. 73% of professional HCPs were agreed on the point that patient's prescription should be stamps and alleged.



**Figure 2:** The comparison of frequency and percentage of Healthcare Service Providers Attitude about MSDS

Second portions in this questionnaire were included as attitude of HCPs towards MSDS. A list of questions such as essential to improve quality, easily implementation, emergency mock arrangements, all documents of HCPs should be attested, patients comfort zone, regular internet monitoring etc. Response rate of HCPs was different based on their knowledge, skills and grips. When they were asked that patient comfort amenities should be provided by HCE, it scored 100 percent attitude toward positive response while least percentage was shown on question that "can HCPs can easily implement the MSDS at health facility"



**Figure 3:** The Comparison of frequency and percentage of Healthcare Service Providers Practices of MSDS

In 3rd portion of this survey based pilot study questions were designed to check implantation of MSDS such as attending MSDS conference or seminars, maintenance of patient file, record maintenance, organized events, stock of essential medicines, dealing with emergency situations, complaint management by health care providers, charts and flex banners pasting in hospitals and health care units

for patients awareness etc. in case of implementation of MSDS multiple questions were asked and it was observed that attitude towards implementation was not satisfactory except in few cases. 0.37% of application of MSDS was responded in positive response while 78.7% professional HCPs responded that HCE has complaint management system.

## DISCUSSION

In accordance to the present study a sample of 264 Healthcare service providers from BHUs and RHCs was collected among Doctors, Dental surgeons, Nurses, LHVs, Midwives and Para medical staff. In this sample 156 (51.1%) Healthcare Service Provider were females and 108 (48.9%) were males. The HCSP were with different age groups 21-30 years 103 (75.2%), 31-40 years 22 (16.1%), 41-50 years 8 (5.8%) and 51-60years 4 (2.9%). This indicates majority of Healthcare Service Provider were in young age group 70.2% and about 16.1% were from 31-40-year age group and remaining about 14% were old age whereas the previous study by A Ranasinghe relate with the current findings [22]. In accordance to this study HCSP represent 128 (48.5%) from BHUs and 136 (51.5%) from RHCs. The Healthcare Service Provider were representing different qualification and designations. in which 70 (26.5%) MBBS doctors, 06 (2.3%) Dental surgeons, 19 (7.2%) Nurses and 169 (64%) paramedical staff. It reveals majority of Healthcare Service Provider were para medical staff and doctors. A study was conceded in Nigeria 2016 about knowledge attitude and Practices of healthcare providers to appropriate medical waste management and occupational safety. The results revealed that 40% of healthcare managers had got trained on medical waste management and occupational safety. Only 1.9% hospitals had good knowledge and were Practices safe waste disposal while 98.1% were poor knowledge & Practices inadequate waste disposal. While 100% Healthcare facilities have good attitude to Practices safe waste disposal [23]. In accordance to the present study the gender wise study reveals 108 (48.9%) male HCPs 66 (25.0%) positive attitude toward MSDS while 42 (15.9%) have Neutral attitude towards MSDS and 156 (51.1%) female HCPs 88 (33.3%) have positive attitude 64 (24.2%) Neutral attitude and only 04 (1.5%) Negative attitude towards MSDS. In accordance to the present study conducted on 264 HCPs. The qualification wise distribution of HCPs reveals 70 (26.5%) MBBS doctors showed 43 (16.3%) Positive attitude, 27 (10.2%) Neutral attitude and 0% Negative attitude. 06 (2.3%) BDS doctors showed 03 (1.1%) Positive attitude 03 (1.1%) Neutral attitude and 0% Negative attitude. 19 (7.2%) Nurses showed 12 (4.5%) Positive attitude 07 (2.7%) Neutral attitude and 0% Negative attitude. And 169 (64.0%) paramedical staff showed 96

(36.4%) Positive attitude 69 (26.1%) Neutral attitude and 04 (1.5%) Negative attitude about MSDS. Sandeep Kumar et.al 2008 conducted a study in Lucknow about knowledge, attitude and Practices of hospital Healthcare providers with regard to pre-hospital and emergency care in Lucknow. Median scores of knowledge 52% (26/50), attitude 82% (41/50) and Practices 54% (27/50) showed less than adequate knowledge and Practices. However, a positive attitude was seen in all the 3 group of respondents i.e. resident doctors, hospital consultants and private practitioners [24]. JB Suchitra et.al 2017 carried out a study on Impact of education on knowledge, attitudes and Practices among various categories of health care workers on nosocomial infections. The study exposed Post graduates scored good and admirable results. However, this deteriorated with the passage of time. The hand washing Practices was compiled different among the different HCWs. Total compliance was 63.3% and ward aides were most compliant 76.7% [25].

## CONCLUSION

This study shows that Knowledge of HCPs working at BHUs and RHCs is poor as Majority of staff was newly appointed and not aware of MSDS requirement. Due to which quality of healthcare and patient safety is extremely compromised. Practices of MSDS are associated with knowledge of HCPs about MSDS. However, majority of HCPs working at BHUs and RHCs have good attitude towards MSDS implementation.

## REFERENCES

- [1] Shaikh BT. Private sector in health care delivery: a reality and a challenge in Pakistan. *Journal of Ayub Medical College Abbottabad*. 2015; 27(2):496-8.
- [2] Majrooh MA, Hasnain S, Akram J, Siddiqui A, Memon ZA. Coverage and quality of antenatal care provided at primary health care facilities in the 'Punjab' province of 'Pakistan'. *Plos one*. 2014; 9(11): e113390. doi: 10.1371/journal.pone.0113390.
- [3] Hassan A, Mahmood K, Bukhsh HA. Healthcare system of Pakistan. *IJARP*. 2017; 1(4):170-3.
- [4] Hashmi A, Amirah N, Yusof Y. Organizational performance with disruptive factors and inventory control as a mediator in public healthcare of Punjab, Pakistan. *Management Science Letters*. 2021; 11(1):77-86.
- [5] Win EM, Saw YM, Oo KL, Then TM, Cho SM, Kariya T, et al. Healthcare waste management at primary health centres in Mon State, Myanmar: The comparisons between hospital and non-hospital type primary health centres. *Nagoya Journal of Medical Science*. 2019; 81(1):81.
- [6] Kronfol N. Access and barriers to health care delivery

- in Arab countries: a review. *EMHJ-Eastern Mediterranean Health Journal*, 2012; 18 (12): 1239-1246. doi: 10.26719/2012.18.12.1239.
- [7] Ahmad M. Health care access and barriers for the physically disabled in rural Punjab, Pakistan. *International Journal of Sociology and Social Policy*. 2013 Apr.
- [8] Hashami MF. Healthcare systems & its challenges in Pakistan. *International Journal of Social Science*. 2020; 9(1):19-23.
- [9] Majrooh MA, Hasnain S, Akram J, Siddiqui A. A cross-sectional assessment of primary healthcare facilities for provision of antenatal care: calling for improvements in Basic Health Units in Punjab, Pakistan. *Health research policy and systems*. 2015 Nov; 13 Suppl 1(Suppl 1):59. doi: 10.1186/s12961-015-0046-3.
- [10] Sharif H, Sughra U, Butt Z. Panoramic view of challenges and opportunities for primary healthcare systems in Pakistan. *Journal of Ayub Medical College Abbottabad*. 2016; 28(3):550-4.
- [11] Callen M, Gulzar S, Hasanain A, Khan AR, Khan Y, Mehmood MZ. Improving public health delivery in Punjab, Pakistan: issues and opportunities. *The Lahore Journal of Economics*. 2013 Sep; 18(special edition):249.
- [12] Achakzai BK, Ategbo EA, Kingori JW, Shuja S, Khan WM, Ihtesham Y. Integration of essential nutrition interventions into primary healthcare in Pakistan to prevent and treat wasting: A story of change. *Field Exchange* 63. 2020 Sep; 13.
- [13] Rizvi Jafree S, Mahmood QK, Mujahid S, Asim M, Barlow J. Narrative synthesis systematic review of Pakistani women's health outcomes from primary care interventions. *BMJ Open*. 2022 Aug; 12(8): e061644. doi: 10.1136/bmjopen-2022-061644.
- [14] Momina A, Zakar R. Implementation of the Anti-Quackery Mandate Punjab Healthcare Commission: Challenges and Limitations. *Pakistan Journal of Medical and Health Sciences*. 2021; 15(9):2150-3.
- [15] Khan AJ, Malik MA. Regulation, quality reporting and third-party certification of healthcare providers. 2020.
- [16] Jawaid SA. Punjab Healthcare Commission needs to be supported and strengthened. *Pulse International*. 2014; 15(11).
- [17] Amiri M, El-Mowafi IM, Chahien T, Yousef H, Kobeissi LH. An overview of the sexual and reproductive health status and service delivery among Syrian refugees in Jordan, nine years since the crisis: a systematic literature review. *Reproductive health*. 2020 Oct; 17(1):166. doi: 10.1186/s12978-020-01005-7.
- [18] Athiyah U, Setiawan CD, Nugraheni G, Zairina E, Utami W, Hermansyah A. Assessment of pharmacists' knowledge, attitude and practice in chain community pharmacies towards their current function and performance in Indonesia. *Pharmacy Practice (Granada)*. 2019 Sep; 17(3):1518. doi: 10.18549/Pharm Pract.2019.3.1518.
- [19] Awan A, Afzal M, Majeed I, Waqas A, Gilani SA. Assessment of knowledge, attitude and practices regarding occupational hazards among Nurses at Nawaz Sharif Social Security Hospital Lahore Pakistan. *Saudi Journal of Medical and Pharmaceutical Sciences* 2017; 3(6):622-30.
- [20] Ashraf M, Vervoort D, Rizvi S, Fatima I, Shoman H, Meara JG, et al. Access to safe, timely and affordable surgical, anaesthesia and obstetric care in Pakistan: a 16-year scoping review. *Eastern Mediterranean Health Journal*. 2022 Apr; 28(4):302-313. doi: 10.26719/emhj.22.009.
- [21] Sarfraz M, Tariq S, Hamid S, Iqbal N. Social and societal barriers in utilization of maternal health care services in rural punjab, Pakistan. *Journal of Ayub Medical College Abbottabad*. 2015 Oct; 27(4):843-9.
- [22] Ranasinghe AWIP, Fernando B, Sumathipala A, Gunathunga W. Medical ethics: knowledge, attitude and practice among doctors in three teaching hospitals in Sri Lanka. *BMC Medical Ethics*. 2020 Aug; 21(1):69. doi: 10.1186/s12910-020-00511-4.
- [23] Anozie OB, Lawani LO, Eze JN, Mamah EJ, Onoh RC, Ogah EO, et al. Knowledge, attitude and practice of healthcare managers to medical waste management and occupational safety practices: Findings from Southeast Nigeria. *Journal of clinical and diagnostic research: JCDR*. 2017 Mar; 11(3): IC01-IC04. doi: 10.7860/JCDR/2017/24230.9527.
- [24] Kumar S, Agarwal AK, Kumar A, Agrawal G, Chaudhary S, Dwivedi V. A study of knowledge, attitude and practice of hospital consultants, resident doctors and private practitioners with regard to pre-hospital and emergency care in Lucknow. *Indian Journal of Surgery*. 2008 Feb; 70(1):14-8. doi: 10.1007/s12262-008-0003-2.
- [25] Suchitra JB, Devi NL. Impact of education on knowledge, attitudes and practices among various categories of health care workers on nosocomial infections. *Indian journal of medical microbiology*. 2007 Jul; 25(3):181-7. doi: 10.4103/0255-0857.34757.