

**ORIGINAL ARTICLE****Hand Washing Practices in Hostelite Students; A multicenter KAP Study**

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<p><b>Affiliations</b></p> <p><b>1.</b> Senior Lecturer/ HOD Imran Idrees Institute of Rehabilitation Sciences, Sialkot</p> <p><b>2 – 6</b> 4<sup>th</sup> year MBBS students of Sialkot Medical College, Sialkot. Merabf25@smc.edu.pk Kushach25@smc.edu.pk Maryamwaq25@smc.edu.pk Nabeeshanas25@smc.edu.pk Mnomannajeeb25@smc.edu.pk</p> <p><b>Corresponding Author:</b> Mr. Usman Saeed, Senior Lecturer/ HOD Imran Idrees Institute of Rehabilitation Sciences, Sialkot Hod.hnd@iirs.edu.pk 0331-7483147</p> <p><b>Submission completed:</b> Nov, 2025 <b>Review began:</b> Dec, 2025 <b>Review ended:</b> Jan, 2026 <b>Accepted:</b> Feb, 2026 <b>Published:</b> March, 2026</p>	<p><b>ABSTRACT</b></p> <p><b>Objectives:</b> To assess level of awareness and the frequency of hand washing and identifying barriers and facilitations affecting hand washing behavior.</p> <p><b>Methods:</b> Descriptive cross-sectional study in three Medical colleges with hostel facilities in Sialkot city, including Sialkot Medical College, Islam Medical College and Khawaja Muhammad Safdar Medical College in Fourth-year MBBS students residing in hostels from July to September 2025. Stratified random sampling based on student lists from each college was used and 70 students were included.</p> <p><b>Results:</b> Almost 50% of students used to hand wash always before meals and also use soap for it. However 80% of students complained lack of facilities of hand washing before meals, while 41% are fully aware regarding importance of hand washing.</p> <p><b>Conclusion:</b> Most of the students do hand washing with soap before taking meals.</p> <p><b>Keywords:</b> aware, Soap, hostelite, facilitation, barriers</p> <p><b>Cite this Article as:</b> Saeed S., Fatima M., Chaudhary K., Waqar M., Nasir N., Najeeb MN; Hand Washing Practices in Hostelite Students; A multicenter KAP Study. SIAL J Med. Sci. March-2026 V-4 (Issue-03, Overall Issue-15):25-28</p> <p><b>Author contribution:</b> SS, MA, KC, MW, NN, MNN: Designed the research Pattern and drafted the manuscript.</p>
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**Introduction**

Hand hygiene is recognized globally as a fundamental practice for preventing infectious diseases. Despite being an essential part of personal hygiene and public health, compliance with proper hand washing, especially before meals, is often neglected. In communal environments such as hostels, where medical students live and eat together, the risk of transmitting infections due to poor hand hygiene increases. This issue is

particularly relevant for future healthcare providers who are expected to model appropriate hygiene practices.

Fourth-year MBBS students, due to their clinical exposure, should ideally demonstrate optimal hygiene behaviors. However, behavioral inertia, lack of monitoring, and resource-related issues often compromise these practices. This study aims to evaluate the hand washing practices before meals

among hostel-residing 4th year MBBS students in Sialkot Medical College Sialkot. Several national and international studies reveal that knowledge alone does not ensure hand hygiene compliance. A study in Lahore indicated that only 58% of medical students regularly washed their hands before meals<sup>1</sup>. In Karachi, students cited time constraints, forgetfulness, and lack of water as barriers<sup>2</sup>. A WHO report underscores that correct hand washing with soap and water can reduce gastrointestinal illnesses by up to 40%<sup>3</sup>. However, localized studies from Sialkot are missing, which this research intends to address.

**Objectives**

To assess level of awareness and the frequency of hand washing and identifying barriers and facilitations affecting hand washing behavior.

**Methodology**

Descriptive cross-sectional study in three Medical colleges with hostel facilities in Sialkot city, including Sialkot Medical College, Islam Medical College and Khawaja Muhammad Safdar Medical College in Fourth-year MBBS students residing in hostels from July to September 2025.

Stratified random sampling based on student lists from each college was used and 70 students were included.

A structured questionnaire distributed to participants included;

- Demography
- Frequency of hand washing before meals
- Hand washing method used (soap, sanitizer, water only)
- Awareness of hand hygiene guidelines
- Perceived barriers (lack of water, time, forgetfulness)

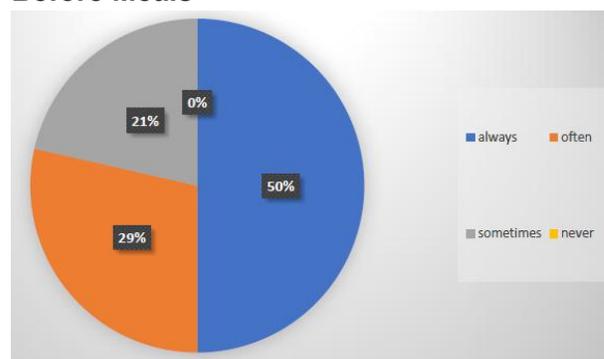
**Results**

Almost 50% of students used to hand wash always before meals and also use soap for it. However 80% of students complained lack of facilities of hand washing before meals, while

41% are fully aware regarding importance of hand washing.

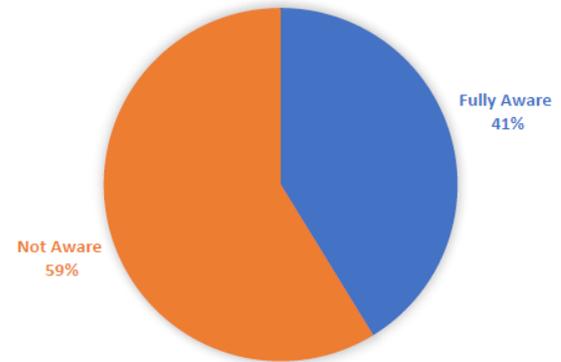
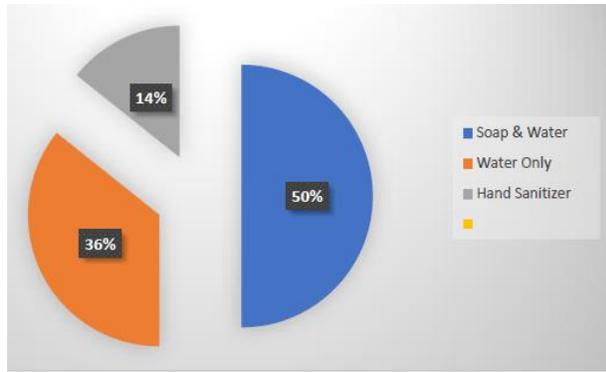
Frequency	No. of Students	Percentage
Always	35	50
Often (3–4 times/week)	20	29
Sometimes (1–2 times/week)	15	21
Never	0	0

**Table 1: Frequency of Hand Washing Before Meals**



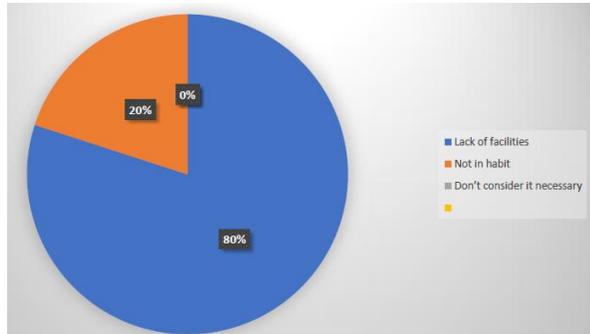
Frequency	No. of Students	Percentage
Soap and water	35	50
Water Only	25	36
Hand Sanitizer	10	14

**Table 2: Hand Washing Methods Used**



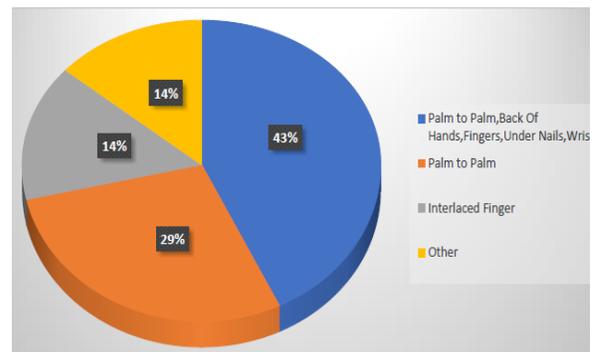
Barrier	Students Reporting	Percentage
Lack of facilities	28	80
Not in habit	7	20
Don't consider it necessary	0	0

**Table 3: Barriers to Regular Hand Washing**

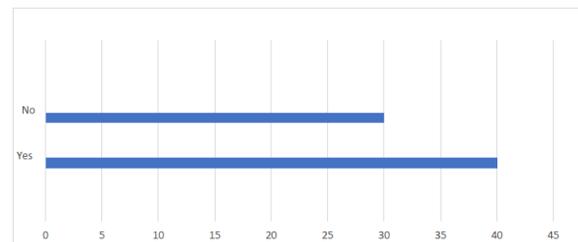


Awareness level	No. of Students	Percentage
Fully Aware	33	41
Not Aware	37	59

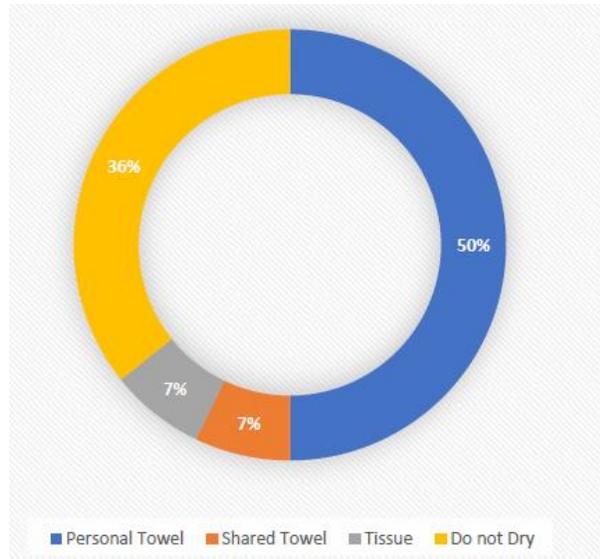
**Table 4: Awareness of WHO Hand Hygiene Guidelines:**



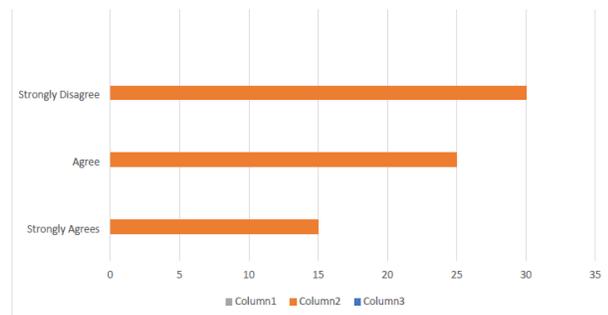
**5.Steps Performed During Hand Washing:**



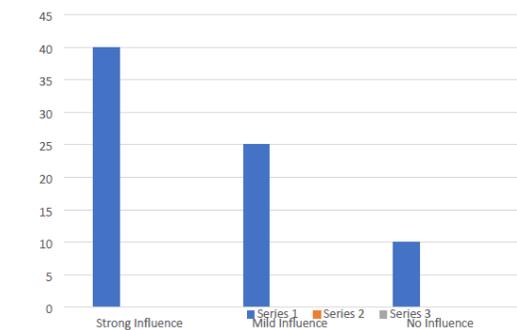
**6.Follow up of Complete Hand Washing Procedure: Complete hand washing procedure for 20 seconds**



**7. Drying Method of Hands After Washing:**



**8. Hand Sanitizer as a Substitute for Hand Washing:**



**9. Influence of Peer Behavior on Hand Washing:**

**Discussion**

Hand washing is very effective in preventing communicable diseases. Hand washing is particularly important for children, as they are more vulnerable to infections gained from

unwashed hands and also due to their unhealthy behaviour. The study was conducted to determine the availability of hand washing facilities, hand washing knowledge and practices among public primary schools in Kintampo Municipality.<sup>4</sup> There is the need for effective hand washing education in the schools to help improve hand washing knowledge and practices. Hand washing facilities in the schools were found to be inadequate.<sup>4</sup> We also recommended the same.

Although the results of this study indicated that respondents had high levels of knowledge, attitude and practices of hand hygiene, the information provided in this study regarding current hand hygiene knowledge, attitudes and practices among students will help identify the gaps in knowledge, poor attitudes and substandard practices. This will also be valuable to the design and implementation of the hand hygiene intervention. Hand hygiene is essential to the health of the school community. This study assessed the levels of knowledge, attitude and practices of hand hygiene among Canadian Maple International School, Dhaka.<sup>5</sup> Their results are accordance with our study.

**Conclusion:**

Most of the students do hand washing with soap before taking meals.

**Ethical Considerations:**

This study was adhered to ethical standards for human research. Informed consent was obtained. Data confidentiality and participant anonymity as ensured. Ethical approval was obtained from the Institutional Review Board of Sialkot Medical College.

**Disclaimer:** None

**Conflict of Interest:** None

**Source of Funding:** None

**Reference**

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