Identifying the Determinants Contributing Towards the Achievements of SDGs: A Case Study of a Medical Institute

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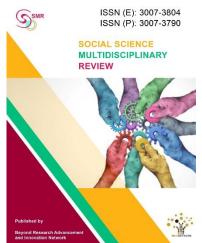
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ABSTRACT

The purpose of the study is to analyze the determinants that have helped a medical institution to achieve remarkable success in promoting Sustainable Development Goals (SDGs) within health care. This research is intended to provide important insights into the role that higher education institutions can play in assisting healthcare systems with developing approaches for sustainable development. Taking a case study approach, this research examines the medical institution through comprehensive discussion with faculty and staff members as sources. Within the overall structure of the Case Study design, Grounded Theory is used to ensure a complete understanding. The research is carried out at the renowned medical institution in Pakistan. The whole study, covering a year's time, permits us to examine in depth the factors underlying institutions' pursuit of SDGs. Inductive methods, and semi-structured interviews were used for data collection. From among 250 faculty and staff, we deliberately selected a specific cohort of 15 faculty members and ten non-faculty personnel who had experience with university ranking systems and made contributions towards SDGs. The results indicate that institution's success in reaching SDG objectives can be credited to five main elements: delivering high-quality education, carrying out top-notch research, offering social support, advocating for health and wellness, and actively striving for poverty reduction. This information is a key input for policymakers,

educators and others who want to improve the function of Higher Education Institutions (HEIs) as agents in sustainable development within the field of healthcare. Through comprehensive and strategic planning that addresses each of these determinants, medical institutions have the power to transform society for a healthier tomorrow.

Keywords: Higher education institutions, sustainable healthcare, role of medical institutes for sustainable development, determinants for achieving sustainable development, sustainable development goals (SDGs)

1. INTRODUCTION

Education at higher levels is fundamental in promoting sustainable societies, both through the pedagogy employed by institutions of learning and through cultivating future leaders to direct innovative approaches (Chankseliani & McCowan, 2021). Through the adoption of sustainable development education, HEIs endeavor to empower and enable people with a set of values, skills and competencies required for creating an environmentally benign society. (Boström et al., 2018).

Medical institutes play an important role within the healthcare system and are making notable contributions to improving, or even transforming, how health care is provided (Ashida, 2023). Their remit, indeed, goes beyond academic goals. They should prepare students with knowledge they can apply to solving problems in global health and promoting sustainable development. Thus, students are adequately equipped to respond to the changing needs of our more interconnected world (Van Niekerk et al., 2020). Medical institutes take on an important role in resolving the problems of health care in Pakistan and help to achieve SDGs. These institutes actively promote optimal health and wellbeing, by providing training to healthcare professionals, undertaking leading-edge research activities and implementing innovative practices (Muhammad et al., 2023). With this proactive involvement, Pakistan's medical institutes are significant participants in both domestic and international quests for sustainable development.

To understand the roots that determine whether a medical institution can achieve SDGs, it is clear why such important research needs to be done. While there are various examples of existing literature that examine the role played by higher education institutions and medical institutes in promoting sustainable societies, a notable gap still exists examining specifically where individual medical institutes

have contributed towards achieving this critical global development objective. This study seeks to bridge this gap by looking closely at one medical institute and examining its actual practice, exploring what in detail lies behind the success that links with or contributes directly to supporting broader SDGs. This study has weighty implications for our thinking about sustainable development in the healthcare arena and offers instructive suggestions to policymakers, educators, and participants concerned with strategies that can help find a way forward toward meeting SDG targets. Thereby, through an in-depth study of this one case, we hope to reveal some complicated threads that can help illuminate our understanding of more encompassing models for sustainable development within the health sector. This study is based on the views of faculty and staff members to determine what are those factors that make it possible for SDGs to be achieved.

To highlight the significance of our study, we intentionally chose a university that takes an active part in the Times Higher Education (THE) Impact Rankings. However, this institution possesses great expertise and capabilities in maneuvering through a variety of different ranking systems. University performance across all the 17 SDGs is assessed by means of an evaluation conducted by THE Impact Ranking, providing us with a critical joint framework through which to analyze universities 'contributions in this field (Galleli et al., 2022). The fourth edition of the 2023 Impact Rankings had a wide range of universities, with participation from 1406 institutions representing countries and regions around the world. As such, this global assessment has been made to highlight the broad significance and farreaching effects of these efforts which have been sustained over many years.

In this qualitative study, the aim is to identify and examine the essential factors that enable Fatima Jinnah Medical University to achieve the SDGs. Pakistan has adopted the SDGs as its national development agenda, making it crucial to highlight specific factors contributing to these significant achievements. This valuable insight will provide readers with a comprehensive understanding of the commendable efforts at this institution and offer practical insight for other academic institutions looking to enhance their contributions towards SDG implementation by 2030.

2. LITERATURE REVIEW

Quality higher education should result in sustainable development, i.e., the creation of a society that can meet current needs while protecting future

generations' ability to do the same (MADAN & PHOGAT, 2021). The SDGs are a set of 169 targets and 17 goals that cover environmental, social, and economic aspects of SD. All members of the United Nations have committed to achieving these objectives in all nations in the upcoming years (until 2030). The Sustainable Development Agenda of 2030, which was endorsed at the United Nations' "Summit for Sustainable Development" in September 2015 and went into effect in January 2016, includes the Sustainable Development Goals. Final report "Achieving Sustainable Development: The 2030 Agenda" outlines the methods for putting into action, tracking, and evaluating each of these goals. (Crow, 2010).

The incorporation of the United Nations' SDGs into higher education has become an important area for research. This symbolizes a world eager to resolve complex socioeconomic and environmental problems. The process of integrating the SDGs into higher education has gone quite a way, as a comprehensive analysis by Amorós Molina et al., (2023) points out (Amorós Molina et al., 2023). This also involves injecting the concept of SDGs through a wide range of channels, such as instructional courses. Dynamic workshops and eye-opening lectures (Amorós Molina et al., 2023). In a comparative stud, Serafini et al., (2022) did an extensive review to put you on the whole about how Higher Education Institutions worldwide are implementing SDGs and 17 Sustainable Development Goals (Serafini et al., 2022), building on this exploration (Amorós Molina et al., 2023) expands the discussion by providing examples of steps being taken to integrate SDGs within high-income countries.

Moreover, (Lei et al., n.d.) do a thorough appraisal of the infiltration into tertiary education by SDGs and find that higher teaching is one torch for lighting up these global development goals. Jones et al., (2023) examine the literature about what students think of sustainable development goals in higher education, which can provide a backdrop to our understanding of their thinking on these areas better (Jones et al., 2023). Furthermore, Lim's study is an exhaustive and intensive exploration to determine how deep the concept of sustainability goes regarding Higher Education. This helps us better understand what in fact are the key factors driving sustainable development here (Ocaña-Zúñiga et al., 2023). Looking at the other side of the equation, Budihardjo et al., (2021) distinguish those important variables which provide for success in promoting sustainability among Higher Education Institutions and offer a realistic model by which we can recognize elements that are leading to sustainability (Budihardjo et al., 2021). These studies

taken together provide some valuable reflections on the global effort to integrate SDGs into university life.

If all individuals are to be actively engaged in promoting the achievement of the SDGs, then certain values, skills and attitudes will first have to take root. Thus, Higher Education (HE) is the crux of this process. Universities can carry out many steps to integrate the SDGs into our everyday life. These strategies, as laid out by (Filho et al., 2017), require a revolutionary change in education that implies new perspectives on both research and curriculum to ensure it fits the needs of society today and tomorrow (Filho et al., 2017). Hooey et al., (2017) this thought that such a paradigmatic shift is very likely to occur. Given the objectivity they possess, and the confidence bestowed upon them by stakeholders, HEIs occupy a distinct position in society, enabling them to foster and facilitate meaningful dialogue, as well as establish collaborative environments among diverse stakeholders (Hooey et al., 2017). Figure I show the four SDG components and how they interact to improve SDG implementation. The degree of interaction between and within the dimensions determines how well the SDGs are implemented. It is not new for HEIs to place a strong emphasis on sustainability; in fact, it can be directly linked to the Stockholm Declaration of 1972. The United Nations International Environmental Education Programme and the United Nations Educational, Scientific, and Cultural Organization has organized the world's first international meeting which resulted in the creation of the Tbilisi Declaration (Wright, 2002). It makes a more explicit connection between the two later. Since the field of sustainability developed in the 1980s, expectations from HEIs to include sustainable practices and policy have increased. HEIs are helping to accomplish the SDGs by pooling their resources, incorporating sustainability into campus infrastructure, and incorporating SD into programs and policies. It should be noted that some scholars working in Higher Education Institutes (HEIs) offer critical evaluations of the potential for exploitation and pain in HEI's effect on social development (Alam et al., 2021). HEIs can improve the capabilities and qualifications, confidence, and autonomous action that stakeholders have. To take two examples: through deep involvement in participatory processes combined with research on sustainable development, of course they will make progress.

The systematic review by Aftab et al., (2020) provided a better understanding of how these ambitions have evolved, the obstacles they face and opportunities that exist in fulfilling them: identifying global collaboration as essential for healthcare

to realize its full potential within this century (Aftab et al., 2020). Moreover, A bibliometric study by Yamaguchi (2023) has shown that the Study of SDGs is attracting an increasing amount of scholarly attention and interest from a broad range of fields (Yamaguchi et al., 2023). The studies on sustainability in HEIs in Pakistan by (Hinduja et al., 2023) and the macroeconomic factors influencing Pakistan's economy by (Xu et al., 2023) contribute valuable insights into the multifaceted approaches toward achieving SDGs at both institutional and national levels. Additionally, the case study conducted by Decouttere et al., (2021) underscores the importance of advancing SDGs through a comprehensive literature review, providing a roadmap for policymakers and practitioners (Decouttere et al., 2021). As the research landscape continues to evolve, this review serves as a foundation for future endeavors, guiding scholars, policymakers, and practitioners in their collective pursuit of sustainable development. While past studies did a fantastic job of outlining the background of SD and SDGs and providing case studies and examples, frequently as distinct units, the objective of this study is to pinpoint the areas where medical institutes might focus to enhance their performance in relation to SDGs.

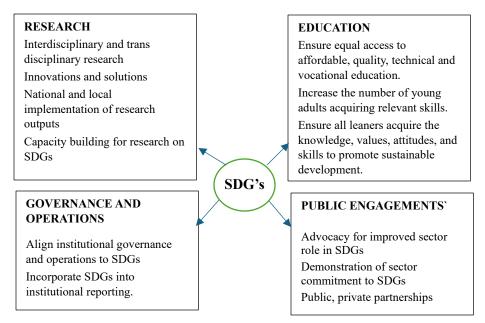


Figure I: Dimensions of SDGs (Adapted from Hooey et al., 2017)

3. RESEARCH METHODOLOGY

3.1. Research Questions

The following research questions served as a guide for the study:

RQ1: What is the role of good education in the achievement of SDGs?

RQ2: What is the role of good research in the achievement of SDGs?

RQ3: What is the role of health services in the achievement of SDGs?

RQ4: What is the role of social services in the achievement of SDGs?

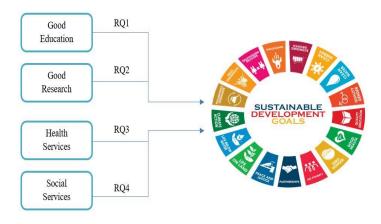


Figure II: Research Questions

3.2. Research design and approach.

This study utilized a qualitative case study approach to examine the factors that contribute to the accomplishment of Sustainable Development Goals. This approach emphasizes cases, locations, problems and time frames or other clearly defined parameters (Creswell & Guetterman, 2018). The research entailed a series of interviews with 25 people who were affiliated with the selected university including senior faculty and senior staff members. To explore the relationship between these factors and how they interact, we carried out some semi-structured interviews. These interviews sought the opinions of both faculty and staff about achieving SDGs. The qualitative research methodologies used in this study have

been undertaken through an iterative process of collecting, exploring, studying, and analyzing faculty member insight.

3.3. Setting, Population/Participants

The university has a faculty and staff team of over 250 individuals. To this study, a sample group consisting of fifteen teachers and ten staff members was selected from different departments. This selection criteria aimed to include participants who had experience in university ranking systems or contributing to the attainment of Sustainable Development Goals during their tenure at the institution. Choosing participants with relevant experiences and employing deliberate sample techniques are in line with (Lodico, 2010) advice to choose participants who have pertinent expertise related to the study's central question. Participants in this qualitative study were required to meet the following eligibility criteria:

- Participants of the study must be in a leading role in Teaching/Administration.
- Participants of the study must have worked for the University's participation in Times Higher Education (THE) Impact Ranking.

Most of the respondents who took part in the study had positions in the university's top and middle management. This group was chosen based on the premise that these experts, who have extensive knowledge of university procedures, would offer highly relevant and valuable information essential for the research. Table I presents Information pertaining to respondents affiliated with the University. Further elaboration on participant profiles is available in Table II.

Table I: Information on University Respondents

| Item | Frequency | (%) |
|----------------------|-----------|-----|
| Types of respondents | | |
| Vice Chancellor | 1 | 4 |
| Director QEC | 1 | 4 |
| Academicians | 15 | 60 |
| Administrators | 8 | 32 |
| Total | 25 | 100 |

Table II A: Participants Profile Information (Academics)

Respondents: Academics

| Position | Age (Years) | Gender | Education | Years of |
|---------------------------|-------------|--------|-----------|----------|
| | | | Level | Service |
| Professor (R12) | 50 ≥ | M | Master | 30 |
| Professor (R13) | 40 ≥ | F | PhD | 23 |
| Professor (R11) | 50 ≥ | M | Master | 24 |
| Associate Professor (R25) | 31-40 | F | Master | 15 |
| Associate Professor (R21) | 31-40 | M | Master | 16 |
| Associate Professor (R22) | 40-50 | M | Master | 18 |
| Associate Professor (R23) | 40-50 | M | Master | 10 |
| Assistant Professor (R24) | 40-50 | F | Master | 8 |
| Assistant Professor (R15) | 30-40 | F | Master | 9 |
| Assistant Professor (R13) | 30-40 | F | Master | 17 |
| Assistant Professor (R14) | 30-40 | F | Master | 6 |
| Senior Demonstrator (R16) | 30-35 | F | Master | 19 |
| Demonstrator (R17) | 25-30 | F | Bachelor | 3 |
| Demonstrator (R18) | 25-30 | F | Bechelor | 8 |
| Demonstrator (R19) | 35-40 | F | Bachelor | 6 |

Table II B. Participants Profile Information (Administration)

Respondent: Administration

| Position | Age | Gender | Education | Years |
|------------------------------------|---------|--------|-----------|---------|
| | (Years) | | Level | of |
| | | | | Service |
| Vice Chancellor (R3) | 45-50 | M | PhD | 35 |
| Director QEC (R5) | 50 ≥ | F | Master | 20 |
| Registrar (R10) | 50 ≥ | M | Master | 20 |
| Treasurer (R9) | 45-50 | M | Master | 15 |
| Director ORIC (R1) | 30 ≥ | F | Master | 13 |
| Deputy Registrar Admin (R2) | 30-35 | M | Master | 8 |
| Assistant Registrar (R8) | 30 ≥ | M | Master | 6 |
| Director IT (R6) | 40 ≥ | F | Master | 20 |
| Deputy Medical superintendent (R4) | 40 ≥ | M | Master | 15 |

3.4. Data Analysis

Afterward, the interview data was examined using thematic analysis. The use of thematic analysis was made possible by the fact that it allowed for the identification of themes that were significant to the problem at hand and that they

displayed varying degrees of patterned behavior or relevance within the data collection (Braun & Clarke, 2012). Because of their extensive use in numerous situations, these six stages were also utilized in the current study. In order to speed up the analysis process, NVivo, a qualitative data analysis programme, was used. (Braun & Clarke, 2012) six phases of thematic analysis were specifically employed in the current study to explore the answers to research questions. Here are specifics on each of the six phases:

Phase 1: familiarizing yourself with your data.

Reading the transcriptions of the 25 individuals repeatedly allows for familiarization of the study's data.

Phase 2: generating initial coding.

The researcher performed the first coding in a systematic manner, yielding 55 codes from the total data set.

Phase 3: searching for themes.

To identify potential themes, codes were categorized and sorted. Then, to create overarching themes, all associated coded data was categorized under the themes that had been found. The 55 codes that were first discovered in phase two were divided into 15 potential themes at this stage (see Table III for the initial and final identified themes).

Phase 4: reviewing themes.

Review and revision were done on the themes that were determined in step three. A process of examining and refining a list of prospective themes was necessary for this stage. Some of the themes were integrated, while others were enlarged or eliminated. Finding significant themes and sub-themes that accurately represent the data collection is the goal. All fifteen potential themes that were determined in Phase 3 were thoroughly examined and refined for this study. The fifteen probable themes were combined, expanded, and eliminated to leave only the five pertinent themes listed in Table III. During this phase, thematic mapping was also created to show the relationship between the final determined themes and their respective sub-themes for the current study (Figure 1).

Phase 5: defining and naming themes.

The five themes that had been recognized at this point were titled and defined, as shown in Table III. The themes and sub-themes that were discovered in Phase 4 served as a guide for the process of defining and naming the themes.

Phase 6: producing the reports.

This phase includes the final analysis and write-up report for the five identified themes. The tasks and their accompanying sub-challenges are discussed in the section that follows, along with verbatim recording scripts from the contestants.

Table III: The initial and identified themes.

| The 15 Initial Themes | The Final Identified Five Themes |
|---------------------------------|----------------------------------|
| Research | Quality Education |
| Teaching | Quality Research |
| Funding, Finance and Grants | Social Services |
| Social Impact | Good Health & Well being |
| Equity, equality, and Diversity | Poverty Alleviation |
| Information Technology | |
| Lifelong Learning | |
| Print and social media | |
| Academic Freedom | |
| Innovation and Creativity | |
| Sustainability and Management | |
| Academic Transparency | |
| Support of Distance Learning | |
| Labor Market | |
| Cultural Impact | |

Table IV. The final and sub themes

| The Final Theme | Sub Themes |
|-----------------|---|
| Quality | Medical education |
| Education | Vocational training schools |
| | Innovation in medical education |
| | Academic freedom |
| | Scientific conferences |
| | Awareness campaigns |
| | Policies |
| | Certificate in Health Professions Education (CHPE) course |
| | Learning Management System (LMS) |
| | Community centres |

| | Paramedical courses |
|------------------|---|
| Quality Research | Research culture |
| | Promotion of technology and technology intensive solutions- |
| | research |
| | Office of Research Innovation and Commercialization |
| | (ORIC) |
| | Research programs |
| | Research activities |
| | Research freedom |
| | Research funding |
| | Research collaborations |
| Social Services | Social activities |
| | Free education |
| | Free food |
| | NGO collaborations |
| | Contributions in disaster management |
| | Establishment of flood village |
| | Telemedicine Centre |
| | Scholarships |
| Good Health & | Primary health care services |
| Well being | Health education and awareness campaigns |
| | Curative health services |
| | Provision of essential drugs |
| | Mental health |
| | Reproductive health centre |
| | Free medical camps |
| | Health services during disasters |
| Poverty | Scholarship & residential facilities |
| Alleviation | |
| Others | Flood relief activities. |
| | Adoption of villages for rehabilitation |
| | Entrepreneurship |
| | Business Incubation Centres |
| | Education to the less privileged sector |
| | |

4. RESULTS & DISCUSSIONS

Data analysis in the previous section has explored and identified the five determinants contributing towards the achievement of SDGs namely, Quality education, Quality research, social services, good health and wellbeing and Poverty alleviation.

| Themes | Definition |
|---------------------|---|
| Quality Education | Providing quality education in the field of medical |
| | sciences. |
| Quality Research | Providing and facilitating quality research |
| | opportunities |
| Social Services | Contributing towards the betterment of society |
| | through the social services |
| Good Health & Well | Working towards the provision of health facilities |
| being | through hospitals and medical sciences educational |
| | institutes |
| Poverty Alleviation | Putting on continuous efforts to reduce poverty in |
| | the society at all levels. |

Table VI. Determinants and their definition

4.1. Quality Education

The interview sessions consistently highlighted education as a central aspect, underscoring its significant role in shaping students' acquisition of knowledge, abilities, and fundamental principles. The SDG 4 deals with the quality education. Most of the participants especially academicians highlighted the importance of good education system in achievement of SDGs. One of the respondents stated that:

"It should be noted that FJMU is one of the few medical universities in Pakistan which exclusively imparts undergraduate medical education to only women aspiring to become doctors. 100% undergraduate's seats in the MBBS program are occupied by the female students. The university offers equal opportunities to women in nursing, paramedics and post graduate degree programs. There is no discrimination in their participation in academic and co-curricular activities."

(R3)

A variety of perspectives were obtained and grouped into eleven main categories which are medical education, Vocational training schools, Innovation in medical education, Academic freedom, Scientific conferences Awareness campaigns, Policies, CHPE courses, LMS, Community centers and Paramedical courses. Being an educational institute, FJMU is contributing the most in this area. University is also offering robust scholarship programs consisting of the funding from Government and Non-Government bodies to facilitate students in continuation of their education. One of the participants responded that:

"FJMU is a public sector university where students from each income group get admission. University supports its students in all matters. FJMU is the only public sector university that is providing up to 100% scholarships for the needy students." (R11)

University is also contributing under the umbrella of quality education by providing vocational training to the less privileged students through different Non-Government Organizations. This not only serving the purpose of imparting education but also helping in the achievement of SDG 1 which is No Poverty. One of the participants shared the following information:

"Outreach programs for the community are regularly organized by the Department of Community medicine. Association of Old graduates and faculty of university are providing medical services, vocational training, and school education to the less privileged sector in the society." (R2)

Awareness campaigns and scientific conferences specifically focusing on medical education are conducted at the university on a regular basis. The university administration also takes active measures to observe a range of global health and educational days, promoting an environment that values both awareness and scholarly discourse. As highlighted by one of the participants:

"University regularly conducts awareness session/conferences/workshops/symposiums related to medicine, medical education, research, health care service delivery, humanities, and social sciences. University also uses digital media and social networking platforms to float information about these events." (R25)

4.2. Quality Research

Quality research is the second most important contribution that participants have highlighted in the interview sessions. As an academic institution, the endeavor to conduct high-quality research is fundamental and essential in contributing significantly towards achieving the SDGs. This determinant is not only highlighted by the faculty members but also by most of the staff members. One of the participants highlighted that the University has a futuristic approach and has included research in its vision statement which is:

"A globally recognized center of excellence in health professional education, pioneering research and innovation, promoting entrepreneurship, fostering lifelong learning and leadership, setting highest sustainable standards to deliver exceptional community healthcare services." (R1)

The University considers research as pivotal in advancing its mission and has established the Office of Research Innovation and Commercialization (ORIC) to promote research and to develop a linkage between industry and academia. The focus of research is not only on the faculty but also on under and post graduate students as per the mission and vision statement of FJMU. The university regularly conducts faculty development training sessions and workshops for students in this regard. One of the participants shed light on the research culture at the University. He stated:

"Institutional Ethical Review Board and Ethical Review Committee of University ensures ethical practices in medical research. University is collaborating with international healthcare bodies such as SingHealth, Singapore whom we have recently completed a joint research project. Journal of University is indexed with the SCOPUS, Directory of Open Access Journal, IMEMR Journal Directory, Crossref, Asian Digital Library, Research Bib, PakMediNet and Google Scholar." (R12)

Applied research is a study category that focuses on resolving practical issues in various societal, organizational, and industrial settings. One of the United Nations' Sustainable Development Goals aims to make the Earth more hospitable for humanity. The inspiration behind SDG 4 stems from the desire to address universal challenges faced by humankind. Research plays a pivotal role in driving positive changes towards achieving this goal by catalyzing necessary processes and procedures.

University creates an environment where its students and faculty can thrive intellectually and academically. FJMU provides opportunities to faculty and students to enhance their knowledge and competencies through workshops, training, and short courses. Different committees have been formulated to support smooth functioning of academic activities at the university. Research freedom is ensured at all levels as one of the participants responded that:

"It is pertinent to point out that all administrative University committees have student representation. University ensures that all research programs and policies reflect the core values of academic freedom." (R6)

The Offices of Research, Innovation, and Commercialization (ORIC) have also been formed by the university to serve as a centralized hub for all research endeavors. This office oversees every aspect of research from the creation of research proposals to the commercialization of research products. ORIC strives to ensure that all research programmes and policies uphold the fundamental principles of academic freedom, professional integrity, and ethical behavior, as

well as complete adherence to all university regulations, legal obligations, and operational standards.

4.3. Social Services

Social services are the third theme generated from the sub themes including free education, Free food, NGO collaborations Contributions in disaster management, Establishment of flood village, Telemedicine Center, Scholarships. Being a public sector medical institution and having support from attached hospitals, the university actively participates in various social service projects, programs, or activities, with a particular focus on healthcare. These dedicated efforts make a significant impact on improving societal welfare and showcase its dedication to community development. In the past few years' university has also collaborated with number of NGOs and has taken many initiatives for the wellness of society as reflected by the statement of one of the participants:

"University has open door policy to collaborate with registered NGOs and utilize their services in the outreach health programs and launch of initiatives especially in the under privileged areas and support/adoption of rural community. University's village (houses, community center, school, mosque and health facility) in the flood affected areas in collaboration with Customs Health Care Society is one such example." (R8)

In disasters like Covid-19, Dengue, floods etc., faculty and staff of university have played a pivotal role in formulation of guidelines and policies. It has been estimated by WHO that Dengue has caused a financial loss of approximately \$100 - 300 per family, amplifying the strain on a socioeconomic landscape already weakened by the Covid-19 pandemic. One of the faculty members is a member of Dengue Expert Advisory Group (DEAG) and Corona Expert Advisory Group (CEAG) which are provincial bodies which formulate policies, guidelines regarding capacity building of health care workers, disease management and control. The relief activities during floods include promotive, preventive, curative and rehabilitative services for one fifty houses including establishment of community center, schools, mosque, and healthcare center.

University is also providing services to society through its outreach programs. One of the participants highlighted the contributions in this regard:

"Community outreach programs play a vital role in safeguarding the health and well-being of a community. Entrepreneurship of Community Medicine, Association of Old Graduates are actively taking part in such activities. These activities involve participation of students, faculty, alumni, old graduates, and

staff members. Notable works by them have played a very important role to uplift marginalized segment of attached communities and relief works during natural disasters such as during recent floods". (R10)

University is also providing free food to needy students and patients as it is reflected from the statement of one of the participants:

"University is providing food to needy students free of cost at university hostel mess. Moreover, food is available at subsidized rates within the university cafeterias for faculty, students, and staff. Quality of food is ensured by the regular inspections by College & Hostel Canteen/Shops Committee and feedback from end users." (R12)

As mentioned earlier, most of the social services of university's are centered around health initiatives. A noteworthy recent contribution is the establishment of Telemedicine Center, as highlighted by one of the interviewees.

"Telemedicine services started during Covid-19 and maintained during crises of recent floods and Dengue epidemic in Pakistan and now they are available round the clock and serving the patients who cannot visit to the hospital". (R16)

4.4. Good Health and Wellbeing

One of the key determinants contributing towards the achievement of SDGs at university is the provision of comprehensive good health services and a dedicated commitment to societal well-being. The SDG4 also deals with good health and wellbeing. One of the participants informed about the university's significant contributions in this regard as:

"Health education and awareness campaigns (Lactation management, Dengue, Covid-19, Lupus, Breast cancer etc.), Immunization services (EPI, Covid-19, Hepatitis, screening services (Thalassemia and genetic disorders, Hepatitis, malnutrition), Curative health services (diagnosis, treatment & rehabilitation for communicable, non-communicable diseases including malnutrition), Reproductive health and school health services, Mental Health, Provision of essential drugs and healthcare at minimum cost, Primary care services at underprivileged areas e.g. CharrarPind, Mangamandi" (R19)

Study participants also underscored additional sexual and reproductive healthcare services including a dedicated department of Obstetrics and Gynecology offering education and services in sexual and reproductive healthcare. Furthermore, they highlighted a well-established and fully functional reproductive health center run by the Population Welfare department, Government of Punjab. This center provides counselling, and management of issues related to adolescent and juvenile sexual, emotional, and reproductive health (SRH).

Being a public sector medical Institute, the university's attached hospitals provide free medicine to needy patients. University organizes free medical camps in the urban and sub urban community. The Community Medicine department of university is actively involved in the organization of such medical camps. The Head of Community Medicine has informed about the services:

"Department of Community Medicine involves its faculty undergraduate and post graduate students to facilitate the under privileged urban and sub urban community in the surrounding areas. It provides promotive and preventive services in the areas of maternal and child health, disease prevention and control, mental health services through awareness campaigns, health education and counseling sessions, drug addiction prevention through early screening of the medical students." (R1)

University has also provided health services in the disaster. During the floods, the University launched a Humanitarian Flood Relief Activity and Assistance Campaign to support flood affected families in the Province of Punjab. One of the participants informed about the University services:

"University utilized its resources to raise funds to support the affected families in flood affected areas. A "Flood Relief Committee" was constituted under the Chair of the Registrar of the University with Professors of various specialties as the members. All faculty members, students and other staff contributed funds and help, in any way possible, for the people affected by heavy rains and deadly floods. For the relief purpose, delegation of specialist Doctors of 12 different specialties with supporting staff have visited the flood affected areas physically in the "Rajanpur" District of the Punjab and provided relief to the flood victims." (R1)

4.5. Poverty Alleviation

The last theme which has been derived from the interviews is poverty alleviation. By contributing to this head University is fulfilling and achieving the requirements of SDG 1 and 2 which are zero hunger and no poverty respectively. One of the participant's statements reflected the University's contribution to alleviate poverty:

"University took the initiative to serve the under privileged with a unique approach of providing free educational and vocational services along with assisted living clinic for special persons, in addition to conventional healthcare delivery through donations. Association of old graduates was established under the umbrella of university, to provide free education to street children and

vocational training to poor women for empowering them. They also provide scholarships to deserving students at university." (R25)

The University associated Alumni associations and NGOs runs several schools and technical training institutes which are working for the alleviation of poverty in the country. One of the participants informed that:

"The University runs four schools providing free education, books, and uniforms for the street children to eradicate child labor. The vocational training center at these places imparts stitching, cutting, sewing skills to females with low domestic income. University has also established assisted living clinics for special persons (physical, mental and any other disabilities). The clinic offers educational courses of self-management techniques for special persons along with the training and counselling of their families". (R18)



Figure III – Word Cloud

Although University is not directly addressing poverty, it is making a difference through providing research, education, and healthcare services. University is contributing to the improvement of the lives of those who live in poverty by concentrating on the health and welfare of low-income communities and creating efficient interventions that address poverty-related health problems.

5. CONCLUSION

As we conclude this study, we identify five major determinants which are quality education, quality research, social services, good health & well-being, and poverty alleviation and their contributions towards the achievements of the SDGs. The Fatima Jinnah Medical University has demonstrated an impressive level of commitment in its efforts towards these goals, going above and beyond in its commitment to serving the community and creating a positive impact on society. The complex interplay of various factors involved in achieving these goals can be overwhelming, and it is not easy to fully comprehend the extent of their impact. However, the FJMU has proven to be a good example of what can be achieved when a collective effort is made towards these essential objectives.

6. RESEARCH LIMITATIONS AND FUTURE DIRECTIONS

The study only focused on Fatima Jinnah Medical University, limiting the generalizability of its findings to the broader educational domain. Future researchers should broaden their scope by encompassing additional institutions and universities in their investigations. It is recommended that forthcoming researchers undertake an evaluation to assess the progress made towards attaining SDGs in the field of education and identify existing gaps that necessitate attention. Moreover, the role of diverse stakeholders, including governments, policymakers, and civil society organizations, should be examined in depth to comprehend their impact on the realization of SDGs in both the education and healthcare sectors.

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