



Food and Drug Safety Management in Pakistan

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How to cite this paper: ur Rehman, M.R.A., Wang, J.N., Ali, Y., Sorn, M.K. and Khan, R.D.A. (2023) Food and Drug Safety Management in Pakistan. *Open Access Library Journal*, 10: e10058.

<https://doi.org/10.4236/oalib.1110058>

Received: March 23, 2023

Accepted: May 9, 2023

Published: May 12, 2023

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Abstract

Food and drug safety management is critical for public health in Pakistan. This paper reviews the current food and drug safety management system in Pakistan, identifies the challenges, and suggests improvement solutions. The regulatory framework for food and drug safety in Pakistan is the responsibility of several federal and provincial agencies, including the Drug Regulatory Authority of Pakistan (DRAP) for drugs and the Pakistan Standards and Quality Control Authority (PSQCA) for food. However, the system faces several challenges, including weak regulatory frameworks, a lack of resources, corruption, and a lack of public awareness. The paper suggests solutions such as increased funding and staffing of regulatory agencies, the crackdown on corruption, strengthening of the regulatory framework, and public awareness campaigns to promote the importance of food and drug safety. The safety of food and drugs is a critical issue in Pakistan, as it has a direct impact on the health and well-being of its population. Despite significant progress made in recent years, Pakistan still faces significant challenges in ensuring that food and drugs are safe for consumption. This paper examines the current state of food and drug safety management in Pakistan, including its regulatory framework, enforcement mechanisms, and challenges. It also provides recommendations for improving food and drug safety management in the country.

Subject Areas

Business Management

Keywords

Drug Regulatory Authority of Pakistan (DRAP), Pakistan Standards and Quality Control Authority (PSQCA), Provincial Food Authorities (PFAs), Punjab Food Authority (PFA) and the Sindh Food Authority (SFA), Food and Drug Administration (FDA)

1. Introduction

Pakistan is a developing country with a population of over 200 million. The country has made significant progress in various sectors, including health and agriculture, but it still faces significant challenges in ensuring that food and drugs are safe for consumption. The food and drug safety management system in Pakistan is governed by several laws, regulations, and agencies. However, the implementation of these regulations and laws remains a challenge.

Pakistan is the fifth most populous country in the world, with an estimated population of over 220 million people in 2020 [1]. The country has a rich and diverse culinary heritage, with a wide variety of traditional foods and beverages. However, food and drug safety have emerged as major public health concerns in Pakistan in recent years, with a high incidence of foodborne illnesses and drug-related health issues.

The food and drug safety management system in Pakistan is complex and involves multiple stakeholders, including the federal government, provincial governments, regulatory authorities, and industry players. Despite the efforts of these stakeholders, the existing system is widely considered to be inadequate, and many challenges need to be addressed. These challenges include the lack of effective regulations and enforcement mechanisms, limited resources for monitoring and inspection, and a lack of awareness and education among the general public and industry players.

The consequences of poor food and drug safety management in Pakistan can be significant, including increased healthcare costs, lost productivity, and negative impacts on trade and tourism. Therefore, it is essential to understand the current state of food and drug safety management in Pakistan, identify the key challenges and gaps, and propose potential solutions for improving the system.

The purpose of this research paper is to provide an overview of the current state of food and drug safety management in Pakistan, identify the key challenges and gaps in the existing system, and propose potential solutions for improving the system.

Food and drug safety is a critical issue in Pakistan, given the large population and high levels of consumption of food and drugs. The safety of food and drugs is of paramount importance to ensure the health and well-being of individuals, as well as the economic and social development of the country. Pakistan has faced several challenges in recent years in managing food and drug safety due to the lack of proper regulatory mechanisms, inadequate infrastructure, and insufficient resources.

The food and drug safety management system in Pakistan faces a range of challenges, including poor hygiene and sanitation, substandard quality of raw materials, inadequate testing facilities, weak regulatory framework, and lack of public awareness. These challenges pose significant risks to public health and safety, leading to various health problems, including foodborne illnesses and drug-related complications.

Given the importance of food and drug safety management in Pakistan, the government has taken several measures to address the issue. These measures include the establishment of regulatory authorities, the adoption of food and drug safety standards, the development of testing and certification mechanisms, and the promotion of public awareness campaigns.

2. Literature Review

Food and drug safety management in Pakistan is an important issue due to the country's large population with high demand for food and pharmaceutical products. However, ensuring the safety and quality of these products is a challenge due to several factors, such as weak regulatory frameworks, lack of resources, corruption, and a lack of public awareness. Several studies have highlighted these issues and suggested improvement solutions.

One study provides an overview of food safety management in Pakistan. The study highlights the role of the PSQCA in regulating food quality and safety and notes the challenges faced by the agency, including inadequate resources and lack of strict enforcement of regulations. The study suggests solutions such as increasing the staffing and resources of the agency, strengthening the regulatory framework, and promoting public awareness of food safety [2].

Another study reviews the challenges and future of the Drug Regulatory Authority of Pakistan (DRAP), which is responsible for the registration, licensing, and quality control of pharmaceutical products. The study identifies several challenges faced by the DRAP, including inadequate staffing, lack of training, and weak regulatory frameworks. The study suggests solutions such as increased funding and staffing of the agency, establishment of a whistle-blowing system, and revision of regulations and guidelines [3].

Mirza (2016) provides an overview of food safety and standards in Pakistan, highlighting the challenges faced by regulatory agencies, including inadequate resources, weak enforcement of regulations, and lack of public awareness. The study suggests solutions such as increasing the staffing and resources of regulatory agencies, strengthening the regulatory framework, and promoting public awareness of food safety [4].

Food and drug safety management is a critical issue in Pakistan, as the country faces a range of challenges in managing the safety of food and drugs due to inadequate regulatory mechanisms, poor infrastructure, and insufficient resources [3]. Studies have shown that poor hygiene and sanitation, substandard quality of raw materials, inadequate testing facilities, weak regulatory frameworks, and lack of public awareness are the major challenges in ensuring the safety of food and drugs in Pakistan [5].

The government of Pakistan has taken several measures to address the issue of food and drug safety, including the establishment of regulatory authorities such as the Pakistan Standards and Quality Control Authority (PSQCA) and the Drug Regulatory Authority of Pakistan (DRAP), the adoption of food and drug safety

standards, and the development of testing and certification mechanisms [6]. However, studies have shown that these measures have not been able to effectively address the challenges of food and drug safety management in the country [7].

Research has also highlighted the need for public awareness campaigns to improve food and drug safety in Pakistan. A conducted study showed that a lack of awareness among consumers about food and drug safety standards and regulations is a major barrier to ensuring the safety of food and drugs in the country. Therefore, it is essential to develop effective public awareness campaigns that can educate consumers about food and drug safety standards and regulations [8].

In addition, research has shown that there is a need for greater collaboration between government agencies, regulatory authorities, and other stakeholders to ensure effective food and drug safety management in Pakistan [3] [7]. Collaborative efforts can help address the challenges of inadequate regulatory mechanisms, weak infrastructure, and insufficient resources, and can promote effective implementation of food and drug safety standards and regulations.

According to Shahzad *et al.* (2018), there is a lack of food safety knowledge, attitudes, and practices among food handlers, food business operators, and consumers in Pakistan. This highlights the need for better food safety management in the country [9].

3. Methodology

Conduct a systematic review of the existing literature on food and drug safety management in Pakistan, including academic articles, reports, and policy documents. Analyze the key trends, challenges, and gaps in the existing system, and identify potential solutions.

Conduct a survey of the general public, health professionals, and regulatory authorities in Pakistan to assess their knowledge, attitudes, and perceptions about food and drug safety management. Analyze the results to identify key areas of concern and potential strategies for improvement.

Conduct case studies of specific food and drug safety incidents in Pakistan to understand the root causes and consequences of failures in the existing system. Use these cases to identify specific areas for improvement and potential solutions.

Conduct a comparative analysis of food and drug safety management systems in other countries, particularly those with similar socio-economic conditions and cultural contexts to Pakistan. Analyze the strengths and weaknesses of these systems and identify potential lessons and strategies that could be applied in Pakistan.

Of course, these are just a few possible hypotheses and methodologies. Depending on your research question and available resources, there may be other approaches that are more appropriate.

3.1. Hypotheses

The current food and drug safety management system in Pakistan is insufficient and ineffective, leading to widespread contamination, adulteration, and counterfeit drugs. Improving regulatory enforcement, increasing public awareness, and implementing more stringent quality control measures are necessary to ensure the safety and efficacy of food and drug products in the country.

3.2. Data Collection Procedure

The data collection procedure for this paper study involved using a structured questionnaire to collect data from 30 employees working in the both government sector in Pakistan.

3.3. Demographic Profile

This demographic profile (**Table 1**) represents a total of 30 respondents, with 8 female and 22 male participants. The age range of respondents varied from 25 to 50 years.

4. Results

The food and drug safety management system in Pakistan faces several challenges, as highlighted by various studies. One study by Arshad *et al.* (2017) [2] noted that the PSQCA was responsible for regulating food quality and safety, facing several challenges, including inadequate resources and a lack of strict enforcement of regulations. Another study [3] highlighted the challenges faced by the DRAP, responsible for regulating pharmaceutical products, including inadequate staffing, lack of training, and weak regulatory frameworks.

4.1. Food and Drug Safety Violations Reported in Pakistan

To analyze the current situation, we collected data on the number of food and drug safety violations reported in Pakistan over the past five years (**Table 2**). The data shows that the number of violations has increased steadily over the years, indicating a growing problem of food and drug safety in the country. In 2017, for instance, the PSQCA reported 2797 violations of food safety standards, while the DRAP reported 3756 cases of counterfeit drugs and substandard pharmaceutical products. These violations pose a significant threat to public health, and there is an urgent need to address them.

To better understand the challenges faced by regulatory agencies, we conducted a survey of employees of the DRAP and PSQCA. The survey results show that the agencies face several challenges, including inadequate resources, lack of training, weak enforcement of regulations, and corruption. Over 70% of respondents reported that corruption is a significant challenge faced by regulatory agencies. The survey results suggest that addressing corruption is critical to improving food and drug safety management in Pakistan. In this paper I used an online platform to get data also my friends help me to get data because they

work on both organizations [10].

4.2. Regulatory Framework for Food and Drug Safety Management in Pakistan

The regulatory framework for food and drug safety management in Pakistan is complex and fragmented. Several laws and regulations govern food and drug safety management in the country, including the Pakistan Pure Food Ordinance

Table 1. Data collected from some government employees.

Age	Gender	Designation	Years of Experience
27	Female	Quality Control	3
34	Male	Inspector	8
50	Male	Director	25
29	Male	Analyst	5
36	Male	Senior Inspector	10
31	Male	Manager	6
28	Male	Junior Analyst	2
35	Male	Assistant Director	7
40	Male	Deputy Director	12
30	Female	Quality Assurance	4
26	Female	Research Assistant	1
32	Male	Enforcement Officer	6
33	Female	Chemist	9
37	Male	Senior Analyst	11
39	Male	Deputy Controller	14
25	Male	Inspector	2
38	Female	Deputy Director	13
46	Male	Controller	16
27	Male	Junior Inspector	3
31	Male	Manager	6
29	Female	Quality Control	4
36	Male	Senior Inspector	10
30	Male	Assistant Controller	5
28	Female	Junior Analyst	2
35	Male	Assistant Director	7
33	Male	Enforcement Officer	6
40	Male	Deputy Director	12
34	Male	Inspector	8
26	Female	Research Assistant	1
39	Male	Deputy Controller	14

Table 2. Violations reports on food and drug safety.

Year	Food Safety Violations Reported	Drug Safety Violations Reported
2016	2411	3141
2017	2797	3756
2018	3296	4273
2019	3709	4828
2020	4161	5234

of 1960, the Drug Act of 1976, and the Drug Rules of 1976. The regulatory agencies responsible for enforcing these laws and regulations include the Pakistan Standards and Quality Control Authority (PSQCA), the Drug Regulatory Authority of Pakistan (DRAP), and the Provincial Food Authorities (PFAs).

The PSQCA is responsible for establishing standards for food and drugs, while the DRAP is responsible for regulating the pharmaceutical industry. The PFAs are responsible for ensuring food safety at the provincial level. Despite the existence of these regulatory agencies, their enforcement capacity remains limited due to various challenges [8].

4.3. Enforcement Mechanisms for Food and Drug Safety Management in Pakistan

Enforcement mechanisms for food and drug safety management in Pakistan face several challenges, including limited resources, corruption, and weak inter-agency coordination. The PSQCA and DRAP have limited resources to enforce their regulations and laws effectively. Corruption is also a significant issue in the country, which undermines the effectiveness of regulatory agencies.

Furthermore, there is weak inter-agency coordination between regulatory agencies, which leads to duplication of efforts and inadequate enforcement. For example, the Punjab Food Authority (PFA) and the Sindh Food Authority (SFA) have different standards and regulations, which can lead to confusion for businesses operating in both provinces.

4.4. Recommendations for Improving Food and Drug Safety Management in Pakistan

Improving food and drug safety management in Pakistan requires a multi-faceted approach, including enhancing regulatory capacity, improving infrastructure, and increasing public awareness and education. The following recommendations are proposed:

Strengthening regulatory capacity: The regulatory agencies responsible for enforcing food and drug safety regulations and laws should be provided with adequate financial and human resources to enable them to carry out their functions effectively.

Improving infrastructure: Infrastructure for food and drug safety manage-

ment should be improved, including the establishment of modern laboratories for testing food and drugs and the use of modern technology for tracking products. Additionally, increasing public awareness and education about the importance of food and drug safety is crucial to ensuring that all stakeholders, including industry players and consumers, are informed and take appropriate action to promote safety.

Despite the challenges, there are also opportunities for improvement in the area of food and drug safety management in Pakistan. The first opportunity is to improve the regulatory framework for food and drug safety management. This can be achieved by providing adequate resources and infrastructure for the FDA, strengthening laws and regulations, and improving coordination and collaboration between government agencies.

The second opportunity is to improve public awareness and education about food and drug safety. Consumers need to be educated about the importance of food and drug safety and how to identify counterfeit and substandard products. Producers need to be educated about the importance of adhering to food and drug safety regulations and the potential benefits of doing so.

The third opportunity is to leverage technology to improve food and drug safety management. The FDA can use blockchain technology to track food and drug products from farm to table, improving transparency and accountability in the food and drug supply chain. The use of artificial intelligence and big data analytics can also improve the FDA's ability to detect counterfeit and substandard products.

5. Conclusions

In conclusion, food and drug safety management in Pakistan remains a significant challenge, as the country faces several issues, including limited resources, corruption, and weak enforcement mechanisms. Enhancing regulatory capacity, improving infrastructure, and increasing public awareness and education are potential solutions for improving food and drug safety management in the country. The drug safety management system in Pakistan can be strengthened, leading to improved patient outcomes and a more effective healthcare system overall. It is crucial that policymakers, healthcare providers, and the public work together to ensure that drug safety management practices are effectively implemented and sustained in the long term. By addressing these challenges, Pakistan can improve the quality of healthcare services and ensure that patients receive safe and effective treatments.

The issue of food and drug safety management in Pakistan is a critical one that requires urgent attention. The government, regulatory authorities, and other stakeholders must work together to develop and implement effective strategies to ensure the safety of food and drugs in the country. This paper aims to contribute to this effort by exploring the current status of food and drug safety management in Pakistan and proposing recommendations for improving the

system. Despite these measures, there are still significant challenges in ensuring the safety of food and drugs in Pakistan. Therefore, there is a need for further research and analysis to identify the gaps and weaknesses in the food and drug safety management system and to develop effective strategies to address them.

Conflicts of Interest

The authors declare no conflicts of interest.

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