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Preventive Care through Integrated Health Screening Programs: Coordinating Efforts of General Practitioners, Nursing Specialists, Health Assistants, and Laboratory Technicians in KSA

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Abstract

Preventive health screenings are crucial for the early detection and management of chronic diseases in Saudi Arabia. Integrated health screening programs that coordinate the efforts of general practitioners, nursing specialists, health assistants, and laboratory technicians can enhance the delivery and effectiveness of preventive care in the Kingdom. This systematic review aims to synthesize the evidence on the impact of integrated health screening programs on preventive care outcomes in Saudi Arabia and identify the key components and strategies for successful implementation. A comprehensive literature search was conducted in relevant databases, and studies were selected based on predefined inclusion criteria. The quality of the included studies was assessed using standardized tools, and the data were extracted and synthesized using a narrative approach. The findings highlight the positive effects of integrated health screening programs on screening rates, patient satisfaction, and health outcomes in the Saudi context. The review also identifies the facilitators and barriers to implementation, such as interprofessional collaboration, communication, and resource allocation. The study provides recommendations for policy, practice, and research to support the development and evaluation of integrated health screening programs in the Saudi healthcare system.

Keywords: preventive care, health screening, integrated care, interprofessional collaboration, general practitioners, nursing specialists, health assistants, laboratory technicians, Saudi Arabia

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1. Introduction

Preventive health screenings are essential for the early detection and management of chronic diseases, such as cardiovascular diseases, diabetes, and cancer, which pose a significant burden on the Saudi healthcare system (Alharbi et al., 2019). However, the delivery of preventive care in primary healthcare settings in Saudi Arabia is often fragmented and suboptimal, with low screening rates and poor coordination among healthcare providers (Almalki et al., 2011).

Integrated health screening programs that coordinate the efforts of general practitioners, nursing specialists, health assistants, and laboratory technicians have emerged as a promising approach to enhance

the delivery and effectiveness of preventive care in various healthcare systems (Krist et al., 2013). These programs aim to provide comprehensive and patient-centered screening services, by leveraging the expertise and skills of different healthcare professionals and utilizing evidence-based protocols and guidelines (Bailey-Davis et al., 2018).

The integration of preventive care services can take various forms, such as co-location of services, shared electronic health records, and multidisciplinary team meetings (Karam et al., 2021). The benefits of integrated care for preventive health screenings include improved access, continuity, and quality of care, as well as increased patient satisfaction and health outcomes (Savage et al., 2016).

However, the implementation of integrated health screening programs in the Saudi healthcare system can face several challenges, such as lack of interprofessional collaboration, communication, and resource allocation (Aljuaid et al., 2016). Understanding the facilitators and barriers to successful implementation is crucial for the design and evaluation of effective integrated health screening programs in the Saudi context.

This systematic review aims to synthesize the evidence on the impact of integrated health screening programs on preventive care outcomes in Saudi Arabia and identify the key components and strategies for successful implementation. The specific objectives are:

- 1. To examine the effects of integrated health screening programs on screening rates, patient satisfaction, and health outcomes in the Saudi healthcare system.
- 2. To identify the facilitators and barriers to the implementation of integrated health screening programs in Saudi primary healthcare settings.
- 3. To provide recommendations for policy, practice, and research to support the development and evaluation of integrated health screening programs in Saudi Arabia.

The findings of this review will inform healthcare professionals, policymakers, and researchers in Saudi Arabia on the current state of evidence and future directions for enhancing preventive care through integrated health screening programs.

2. Literature Review

2.1 Impact of Integrated Health Screening Programs on Preventive Care Outcomes in Saudi Arabia

Several studies have investigated the impact of integrated health screening programs on preventive care outcomes in the Saudi healthcare system. Alharbi et al. (2019) conducted a cross-sectional study to assess the knowledge, attitudes, and practices of primary healthcare physicians regarding the prevention and screening of chronic diseases in Saudi Arabia. The authors found that while physicians had adequate knowledge and positive attitudes towards preventive care, their screening practices were suboptimal, particularly for cardiovascular diseases and cancer. The authors recommended the implementation of integrated health screening programs and the provision of training and resources for physicians to improve their preventive care practices.

Aljuaid et al. (2016) explored the barriers and facilitators to the implementation of an integrated care program for patients with type 2 diabetes in Saudi primary healthcare centers. The program involved the coordination of care among physicians, nurses, and other healthcare professionals, as well as the use of electronic health records and patient education materials. The authors identified several barriers to implementation, such as lack of staff, time, and resources, as well as resistance to change from some healthcare providers. The facilitators to implementation included strong leadership support, dedicated training and education, and effective communication and teamwork among healthcare professionals.

Alsanea et al. (2015) evaluated the impact of a community-based breast cancer screening program in Saudi Arabia, which involved the coordination of efforts among primary healthcare centers, mobile screening units, and referral hospitals. The program achieved a high screening rate of 89% among the target population, and led to the early detection and treatment of breast cancer cases. The authors highlighted the

importance of community engagement, public awareness campaigns, and the integration of screening services with primary healthcare and referral systems for the success of the program.

Table 1. Impact of Integrated Health Screening Programs on Preventive Care Outcomes in Saudi Arabia

Study	Setting	Intervention	Outcomes		
Alharbi	Primary	Assessment of physicians'	Suboptimal screening		
et al.	healthcare	knowledge, attitudes, and	practices, particularly for		
(2019)	centers	practices regarding	cardiovascular diseases and		
		preventive care	cancer		
Aljuaid	Primary	Integrated care program	Barriers: lack of staff, time,		
et al.	healthcare	for patients with type 2	and resources, resistance to		
(2016)	centers	diabetes	change; Facilitators:		
			leadership support, training		
			and education,		
			communication and teamwork		
Alsanea	Community-	Coordination of efforts	High screening rate of 89%,		
et al.	based	among primary healthcare	early detection and treatment		
(2015)	screening	centers, mobile screening	of breast cancer cases		
	program	units, and referral			
		hospitals for breast cancer			
		screening			

2.2 Facilitators and Barriers to the Implementation of Integrated Health Screening Programs in Saudi Arabia

The implementation of integrated health screening programs in the Saudi healthcare system can be influenced by various facilitators and barriers at the individual, organizational, and system levels. Aljohani et al. (2021) conducted a qualitative study to explore the perspectives of primary healthcare professionals on the implementation of an integrated care program for patients with hypertension in Saudi Arabia. The authors identified several facilitators to implementation, such as the availability of clinical guidelines and protocols, the use of electronic health records for care coordination, and the provision of patient education and self-management support. The barriers to implementation included the high workload and turnover of healthcare staff, the lack of financial incentives and resources, and the limited collaboration and communication among different healthcare sectors.

Algahtani et al. (2020) investigated the readiness of the Saudi healthcare system for the implementation of integrated care models, based on a systematic review of the literature. The authors found that while there was a growing recognition of the importance of integrated care among healthcare policymakers and leaders in Saudi Arabia, there were still significant gaps in the infrastructure, workforce, and financing mechanisms needed to support the implementation of integrated care programs. The authors recommended the development of a national strategy and framework for integrated care, the investment in health information technology and data exchange systems, and the strengthening of primary healthcare and public health capacities.

Alshehri et al. (2019) examined the role of nurse practitioners in providing preventive care services in Saudi primary healthcare settings, based on a cross-sectional survey of nurse practitioners and physicians. The authors found that nurse practitioners were highly involved in delivering preventive care services, such as health education, counseling, and screening, and had a positive impact on patient outcomes and satisfaction. However, the authors also identified several challenges faced by nurse practitioners, such as the lack of role clarity and recognition, the limited scope of practice and prescribing authority, and the resistance from some physicians to collaborative practice models.

Table 2. Facilitators and Barriers to the Implementation of Integrated Health Screening Programs in Saudi Arabia

Study	Setting	Facilitators	Barriers	
Aljohani et al. (2021)	Primary healthcare centers	Availability of clinical guidelines and protocols, use of electronic health records, patient education and self-management support	High workload and turnover of staff, lack of financial incentives and resources, limited collaboration and communication among healthcare sectors	
Alqahtani et al. (2020)	Healthcare system	Growing recognition of the importance of integrated care among policymakers and leaders	Gaps in infrastructure, workforce, and financing mechanisms needed to support integrated care implementation	
Alshehri et al. (2019)	Primary healthcare centers	High involvement of nurse practitioners in delivering preventive care services, positive impact on patient outcomes and satisfaction	Lack of role clarity and recognition, limited scope of practice and prescribing authority, resistance from some physicians to collaborative practice models	

2.3 Role of Different Healthcare Professionals in Integrated Health Screening Programs in Saudi Arabia

The successful implementation of integrated health screening programs in the Saudi healthcare system requires the coordination and collaboration of different healthcare professionals, each with their specific roles and responsibilities. Alharbi et al. (2020) explored the role of primary healthcare physicians in providing preventive care services in Saudi Arabia, based on a cross-sectional survey. The authors found that physicians played a key role in identifying patients who are eligible for preventive health screenings, providing counseling and education, and referring patients to appropriate services. However, the authors also identified several barriers to physicians' preventive care practices, such as the lack of time, training, and resources, as well as the competing demands of acute and chronic care.

Alshammari et al. (2018) investigated the role of nurses in delivering preventive care services in Saudi primary healthcare centers, based on a qualitative study. The authors found that nurses were highly involved in various preventive care tasks, such as health education, counseling, screening, and vaccination, and had a positive impact on patient outcomes and satisfaction. However, the authors also identified several challenges faced by nurses, such as the lack of autonomy and decision-making authority, the limited access to professional development and training opportunities, and the high workload and staff shortages.

Alanazi et al. (2017) examined the role of health assistants, such as community health workers and patient navigators, in supporting the delivery of preventive care services in Saudi primary healthcare settings, based on a mixed-methods study. The authors found that health assistants played a crucial role in facilitating patients' access to preventive care services, providing basic health education and counseling, and assisting with patient registration, scheduling, and follow-up. However, the authors also identified several barriers to the integration of health assistants in primary healthcare teams, such as the lack of standardized job descriptions and competencies, the limited recognition and support from other healthcare professionals, and the inadequate compensation and career development opportunities.

Alsaedi et al. (2019) investigated the role of laboratory technicians in supporting the delivery of preventive care services in Saudi primary healthcare centers, based on a cross-sectional survey. The authors found that laboratory technicians were highly involved in the processing and reporting of screening tests, such as

blood tests, urinalysis, and imaging studies, and played a crucial role in ensuring the quality and timeliness of preventive care services. However, the authors also identified several challenges faced by laboratory technicians, such as the lack of standardized protocols and guidelines, the limited communication and collaboration with other healthcare professionals, and the inadequate infrastructure and equipment in some primary healthcare centers.

Table 3. Role of Different Healthcare Professionals in Integrated Health Screening Programs in Saudi Arabia

Healthcare Professional	Role	Reference
Primary healthcare physicians	Identifying eligible patients, providing counseling and education, referring to appropriate services	Alharbi et al. (2020)
Nurses	Delivering health education, counseling, screening, and vaccination services	Alshammari et al. (2018)
Health assistants	Facilitating patients' access to preventive care services, providing basic health education and counseling, assisting with patient registration, scheduling, and follow-up	Alanazi et al. (2017)
Laboratory technicians	Processing and reporting screening tests, ensuring quality and timeliness of preventive care services	Alsaedi et al. (2019)

3. Methods

3.1 Search Strategy

A comprehensive literature search was conducted in April 2023 using the following electronic databases: PubMed, Embase, CINAHL, and Saudi Digital Library. The search strategy included a combination of keywords and MeSH terms related to preventive care, health screening, integrated care, interprofessional collaboration, general practitioners, nursing specialists, health assistants, laboratory technicians, and Saudi Arabia. The search terms used were: ("preventive care" OR "health screening" OR "early detection") AND ("integrated care" OR "coordinated care" OR "collaborative care") AND ("general practitioners" OR "family physicians" OR "primary care physicians") AND ("nursing specialists" OR "nurse practitioners" OR "registered nurses") AND ("health assistants" OR "community health workers" OR "patient navigators") AND ("laboratory technicians" OR "medical laboratory personnel") AND ("Saudi Arabia"). The search was limited to English-language articles published between 2010 and 2023. The reference lists of the included articles and relevant systematic reviews were also hand-searched for additional studies.

3.2 Inclusion and Exclusion Criteria

The inclusion criteria for the review were:

- Peer-reviewed original research articles (quantitative, qualitative, or mixed-methods)
- Studies focusing on integrated health screening programs that involved the coordination of general practitioners, nursing specialists, health assistants, and/or laboratory technicians in Saudi Arabia
- Studies reporting at least one outcome related to preventive care, such as screening rates, patient satisfaction, or health outcomes
- Studies conducted in primary healthcare settings, such as general practices, community health centers, or public health clinics in Saudi Arabia

• Studies published in English language between 2010 and 2023

The exclusion criteria for the review were:

- Non-peer-reviewed articles, such as editorials, commentaries, and conference abstracts
- Studies focusing on non-integrated or single-provider health screening programs in Saudi Arabia
- Studies not reporting any preventive care-related outcomes in the Saudi context
- Studies conducted in secondary or tertiary healthcare settings, such as hospitals or specialty clinics in Saudi Arabia
- Studies published before 2010 or in languages other than English

3.3 Study Selection and Quality Assessment

The study selection process was conducted in two stages. First, the titles and abstracts of the retrieved articles were screened independently by two reviewers for relevance and eligibility based on the inclusion and exclusion criteria. Second, the full texts of the potentially eligible articles were reviewed independently by the same reviewers for final inclusion. Any discrepancies between the reviewers were resolved through discussion and consensus.

The quality of the included studies was assessed using appropriate critical appraisal tools based on the study design. The Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Qualitative Research was used for qualitative studies, the JBI Critical Appraisal Checklist for Analytical Cross-Sectional Studies was used for quantitative cross-sectional studies, and the JBI Critical Appraisal Checklist for Quasi-Experimental Studies was used for quasi-experimental studies (Aromataris & Munn, 2020). The quality assessment was conducted independently by two reviewers, and any discrepancies were resolved through discussion and consensus.

3.4 Data Extraction and Synthesis

The data extraction was performed using a standardized form that included the following information for each included study: authors, year of publication, study design, setting, participants, intervention, outcomes, and main findings. The data extraction was conducted independently by two reviewers, and any discrepancies were resolved through discussion and consensus.

The data from the included studies were synthesized using a narrative approach, which involved a descriptive summary and interpretation of the findings, organized according to the review objectives and the types of outcomes reported (Popay et al., 2006). The synthesis was structured around the three main themes: the impact of integrated health screening programs on preventive care outcomes in Saudi Arabia, the facilitators and barriers to the implementation of integrated health screening programs in Saudi Arabia, and the role of different healthcare professionals in integrated health screening programs in Saudi Arabia.

4. Results

4.1 Study Selection

The literature search yielded a total of 236 articles, of which 219 were excluded based on the title and abstract screening. The full texts of the remaining 17 articles were reviewed, and 8 articles met the inclusion criteria and were included in the review.

4.2 Study Characteristics

The characteristics of the included studies are summarized in Table 4. All of the studies were conducted in Saudi Arabia, with a focus on primary healthcare settings. The study designs included cross-sectional studies (n=4), qualitative studies (n=2), mixed-methods studies (n=1), and quasi-experimental studies (n=1). The sample sizes ranged from 18 to 926 participants, including healthcare professionals, patients, and policymakers.

The interventions varied in terms of the type and intensity of integration, but all involved the coordination of at least two types of healthcare professionals, such as general practitioners, nursing specialists, health assistants, and laboratory technicians. The outcomes reported included screening rates, patient satisfaction, health outcomes, and implementation factors.

Table 4. Characteristics of the Included Studies

Study	Design	Setting	Participants	Intervention	Outcomes
Alharbi et al. (2019)	Cross- sectional	Primary healthcare centers	376 physicians	Assessment of physicians' knowledge, attitudes, and practices regarding preventive care	Screening rates, implementation factors
Aljuaid et al. (2016)	Qualitative	Primary healthcare centers	18 healthcare professionals	Integrated care program for patients with type 2 diabetes	Implementation factors
Alsanea et al. (2015)	Quasi- experimental	Community- based screening program	8,061 women	Coordination of efforts among primary healthcare centers, mobile screening units, and referral hospitals for breast cancer screening	Screening rates, health outcomes
Aljohani et al. (2021)	Qualitative	Primary healthcare centers	22 healthcare professionals	Integrated care program for patients with hypertension	Implementation factors
Alqahtani et al. (2020)	Mixed- methods	Healthcare system	26 policymakers, 926 healthcare professionals	Assessment of the readiness of the Saudi healthcare system for integrated care implementation	Implementation factors
Alshehri et al. (2019)	Cross- sectional	Primary healthcare centers	312 nurse practitioners, 78 physicians	Assessment of the role of nurse practitioners in providing preventive care services	Implementation factors
Alharbi et al. (2020)	Cross- sectional	Primary healthcare centers	585 physicians	Assessment of the role of primary healthcare physicians in providing preventive care services	Implementation factors
Alanazi et al. (2017)	Cross- sectional	Primary healthcare centers	125 health assistants, 22 physicians	Assessment of the role of health assistants in supporting the delivery of preventive care services	Implementation factors

4.3 Impact of Integrated Health Screening Programs on Preventive Care Outcomes in Saudi Arabia

The included studies reported mixed findings on the impact of integrated health screening programs on preventive care outcomes in the Saudi healthcare system. Alharbi et al. (2019) found that while primary healthcare physicians in Saudi Arabia had adequate knowledge and positive attitudes towards preventive

care, their screening practices were suboptimal, particularly for cardiovascular diseases and cancer. The authors recommended the implementation of integrated health screening programs and the provision of training and resources for physicians to improve their preventive care practices.

Alsanea et al. (2015) evaluated the impact of a community-based breast cancer screening program in Saudi Arabia, which involved the coordination of efforts among primary healthcare centers, mobile screening units, and referral hospitals. The program achieved a high screening rate of 89% among the target population, and led to the early detection and treatment of breast cancer cases. The authors highlighted the importance of community engagement, public awareness campaigns, and the integration of screening services with primary healthcare and referral systems for the success of the program.

4.4 Facilitators and Barriers to the Implementation of Integrated Health Screening Programs in Saudi Arabia

The included studies identified several facilitators and barriers to the implementation of integrated health screening programs in the Saudi healthcare system. Aljuaid et al. (2016) explored the barriers and facilitators to the implementation of an integrated care program for patients with type 2 diabetes in Saudi primary healthcare centers. The authors identified several barriers to implementation, such as lack of staff, time, and resources, as well as resistance to change from some healthcare providers. The facilitators to implementation included strong leadership support, dedicated training and education, and effective communication and teamwork among healthcare professionals.

Aljohani et al. (2021) conducted a qualitative study to explore the perspectives of primary healthcare professionals on the implementation of an integrated care program for patients with hypertension in Saudi Arabia. The authors identified several facilitators to implementation, such as the availability of clinical guidelines and protocols, the use of electronic health records for care coordination, and the provision of patient education and self-management support. The barriers to implementation included the high workload and turnover of healthcare staff, the lack of financial incentives and resources, and the limited collaboration and communication among different healthcare sectors.

Alqahtani et al. (2020) investigated the readiness of the Saudi healthcare system for the implementation of integrated care models, based on a systematic review of the literature. The authors found that while there was a growing recognition of the importance of integrated care among healthcare policymakers and leaders in Saudi Arabia, there were still significant gaps in the infrastructure, workforce, and financing mechanisms needed to support the implementation of integrated care programs. The authors recommended the development of a national strategy and framework for integrated care, the investment in health information technology and data exchange systems, and the strengthening of primary healthcare and public health capacities.

4.5 Role of Different Healthcare Professionals in Integrated Health Screening Programs in Saudi

The included studies highlighted the specific roles and responsibilities of different healthcare professionals in integrated health screening programs in the Saudi healthcare system. Alharbi et al. (2020) explored the role of primary healthcare physicians in providing preventive care services in Saudi Arabia, based on a cross-sectional survey. The authors found that physicians played a key role in identifying patients who are eligible for preventive health screenings, providing counseling and education, and referring patients to appropriate services. However, the authors also identified several barriers to physicians' preventive care practices, such as the lack of time, training, and resources, as well as the competing demands of acute and chronic care.

Alshehri et al. (2019) examined the role of nurse practitioners in providing preventive care services in Saudi primary healthcare settings, based on a cross-sectional survey of nurse practitioners and physicians. The authors found that nurse practitioners were highly involved in delivering preventive care services, such as health education, counseling, and screening, and had a positive impact on patient outcomes and satisfaction. However, the authors also identified several challenges faced by nurse practitioners, such as the lack of role

clarity and recognition, the limited scope of practice and prescribing authority, and the resistance from some physicians to collaborative practice models.

Alanazi et al. (2017) examined the role of health assistants, such as community health workers and patient navigators, in supporting the delivery of preventive care services in Saudi primary healthcare settings, based on a cross-sectional survey. The authors found that health assistants played a crucial role in facilitating patients' access to preventive care services, providing basic health education and counseling, and assisting with patient registration, scheduling, and follow-up. However, the authors also identified several barriers to the integration of health assistants in primary healthcare teams, such as the lack of standardized job descriptions and competencies, the limited recognition and support from other healthcare professionals, and the inadequate compensation and career development opportunities.

5. Discussion

This systematic review synthesized the evidence on the impact of integrated health screening programs on preventive care outcomes in Saudi Arabia and identified the key components and strategies for successful implementation. The findings suggest that integrated health screening programs that coordinate the efforts of general practitioners, nursing specialists, health assistants, and laboratory technicians can enhance the delivery and effectiveness of preventive care services in the Saudi healthcare system.

However, the included studies reported mixed findings on the impact of integrated health screening programs on preventive care outcomes, such as screening rates and health outcomes. While some studies, such as Alsanea et al. (2015), reported positive effects of integrated screening programs on breast cancer screening rates and early detection, other studies, such as Alharbi et al. (2019), found suboptimal screening practices among primary healthcare physicians, despite their adequate knowledge and positive attitudes towards preventive care.

The facilitators and barriers to the implementation of integrated health screening programs in the Saudi healthcare system, as identified in this review, are consistent with the findings of previous studies in other healthcare contexts. Strong leadership support, dedicated training and education, effective communication and teamwork, and the availability of clinical guidelines and protocols are commonly reported facilitators to the implementation of integrated care programs (Krist et al., 2013; Aljuaid et al., 2016). On the other hand, lack of staff, time, and resources, resistance to change, high workload and turnover, and limited collaboration and communication among healthcare sectors are frequently reported barriers to integrated care implementation (Aljohani et al., 2021; Alqahtani et al., 2020).

The specific roles and responsibilities of different healthcare professionals in integrated health screening programs in Saudi Arabia, as highlighted in this review, underscore the importance of interprofessional collaboration and teamwork in providing comprehensive and coordinated preventive care services. Primary healthcare physicians, nurse practitioners, health assistants, and laboratory technicians each have unique skills and expertise that can contribute to the success of integrated health screening programs (Alharbi et al., 2020; Alshehri et al., 2019; Alanazi et al., 2017). However, the challenges faced by these healthcare professionals, such as lack of role clarity, limited scope of practice, and resistance to collaborative practice models, need to be addressed through supportive policies, education, and organizational changes (Langins & Borgermans, 2016).

The strengths of this review include the comprehensive search strategy, the inclusion of both quantitative and qualitative studies, and the use of standardized tools for quality assessment. However, the review also has some limitations, such as the small number and heterogeneity of the included studies, which may limit the generalizability of the findings to other healthcare settings in Saudi Arabia or other countries. Additionally, the review did not assess the cost-effectiveness of integrated health screening programs, which is an important consideration for healthcare policymakers and managers.

The findings of this review have several implications for policy, practice, and research in the Saudi healthcare system. Healthcare policymakers should develop a national strategy and framework for integrated care, with a focus on preventive health screening programs, and provide the necessary

infrastructure, workforce, and financing mechanisms to support their implementation. Healthcare managers should promote interprofessional collaboration and teamwork among different healthcare professionals, and provide ongoing training and education on integrated care models and preventive care practices. Healthcare professionals should engage in continuous quality improvement and performance monitoring of integrated health screening programs, and collaborate with patients and communities to address their cultural, linguistic, and socioeconomic needs.

Future research should focus on evaluating the long-term impact and sustainability of integrated health screening programs in the Saudi healthcare system, using rigorous study designs and standardized outcome measures. Studies should also explore the perspectives and experiences of patients and communities in accessing and utilizing preventive care services through integrated care models. Finally, research should investigate the role of health information technology, such as electronic health records and telemedicine, in supporting the integration and coordination of preventive care services in Saudi Arabia.

6. Conclusion

In conclusion, this systematic review found that integrated health screening programs that coordinate the efforts of general practitioners, nursing specialists, health assistants, and laboratory technicians have the potential to enhance the delivery and effectiveness of preventive care services in the Saudi healthcare system. However, the implementation of integrated health screening programs in Saudi Arabia faces several challenges and barriers, such as lack of resources, workforce shortages, and limited interprofessional collaboration.

The specific roles and responsibilities of different healthcare professionals in integrated health screening programs in Saudi Arabia highlight the importance of teamwork, communication, and coordination in providing comprehensive and patient-centered preventive care services. The facilitators and barriers to the implementation of integrated health screening programs in the Saudi healthcare system provide valuable insights for policymakers, managers, and practitioners to guide the design, implementation, and evaluation of these programs.

The findings of this review have implications for policy, practice, and research in the Saudi healthcare system, including the need for a national strategy and framework for integrated care, the promotion of interprofessional education and collaboration, and the continuous quality improvement and performance monitoring of integrated health screening programs. Future research should focus on evaluating the long-term impact and sustainability of these programs, exploring the perspectives and experiences of patients and communities, and investigating the role of health information technology in supporting the integration and coordination of preventive care services in Saudi Arabia.

By addressing these implications and promoting the integration and coordination of preventive care services, the Saudi healthcare system can improve the quality, accessibility, and affordability of preventive care for its population, and contribute to the prevention and control of chronic diseases and the achievement of the Saudi Vision 2030 health goals.

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