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International aid management in Afghanistan's health sector from the perspective of national and international managers

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Abstract

Purpose The primary purpose of international aid is to promote economic and social development around the world. International aid plays an important role in Afghanistan's healthcare system. The purpose of this study is to investigate international aid management in Afghanistan's health sector from the perspectives of national and international managers in 2022 and to provide recommendations for the improvement.

Design/methodology/approach The study has a cross-sectional design. The study participants were chosen by random sampling. The sample size was determined based on Yaman's formula at 110. The data collection tool was the questionnaire provided by International Health Partnership and Related Initiatives. The data were analyzed in two descriptive (mean and percentage) and analytical formats. Independent t-test, Mann-Whitney, Kolmogorov-Smirnov tests and Variance analysis were used to examine the relationships between demographic variables and the scores of each dimension.

Findings The average scores given to different dimensions of aid management were as following: 1) the donors' support of the national health strategy: $48/68 \pm 16.14$ (49%), 2) the predictable financing: $50/23 \pm 16.02$ (50%), 3) foreign aid on budget: $55/39 \pm 20.15$ (55%), 4) strengthening public financial management system: $38/35 \pm 19.06$ (38%), 5) strengthening the supply and procurement system: 40.97 ± 19.55 (41%), 6) mutual accountability: 46.50 ± 19.26 (46%), 7) technical support and training: 50.24 ± 17.33 (50%), 8) civil society involvement: 35.24 ± 18.61 (35%), 9) private sector participation: 36 ± 17.55 (36%), and in total the average score was 44.52 ± 13.27 (44%). The difference between the scores given by two groups of managers was not significant. No meaningful relationship was observed between the total score and any of the demographic variables, but there was a weak relationship between work and management experience and total score. The correlation coefficient showed a statistically significant relationship between the different dimensions of the questionnaire. To sum up, the performance in all dimensions of aid management hardly reached 50%. Donors' support for the national health strategy was not adequate. There were challenges in evidence-based decision-making, developing national health strategies, control and evaluation, the allocation of resources and use of procurement system. The priorities of donors

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and government were not always similar and mutual responsibility was lacking. Technical assistance and supporting multilateral cooperation are necessary.

Originality/value Most studies on foreign aid focused on its effects on economic growth, poverty and investment and not aid management processes. Without proper aid management, parts of resources are wasted and aims of aid programs cannot be achieved. This study investigates aid management in a developing country from the perspectives of two main stakeholders, international and national managers.

Research limitations and implications Data collection coincided with the change of government in Afghanistan. The situation might be different now. Still, this study provides areas for the improvement of aid management in the studied country. Future studies can build upon the findings of this research and conduct in-depth exploration of areas of aid effectiveness and designing detailed programs of improvement.

Practical implications Instructions of the Paris Declaration on Aid Effectiveness need to be followed. Particularly, civil society involvement and private sector participation should receive attention. A joint plan for improvement and collaboration of different stakeholders is needed.

Keywords Afghanistan, International aid, Foreign aid, Healthcare system, International Health Partnership and related initiatives

Introduction

Afghanistan's history is characterized by internal conflicts and wars which destroyed the economy and country's infrastructures, including the healthcare system [1]. Afghanistan is highly dependent on international aid. Dependence on international aid is defined when the aid accounts for at least 10% of the Gross Domestic Product (GDP), and in the absence of this aid, the government cannot perform its main functions [2]. In 2018, the World Bank estimated that international aid constitutes nearly 40% of Afghanistan's GDP [3].

Foreign aid has been effective in improving Afghans' access to education and health services but still 43% of Afghans do not have access to primary health services and 55% live below the poverty line [4]. The health financing system in this country is fragile due to high out-of-pocket payment and reliance on donors [5]. The country's health sector is financed by 72% out-of-pocket payments, 19.4% donations, 5.1% government budget and 3.5 other sources [6]. Lack of cooperation between the government and donors on how to spend the aid, political instability, low domestic production and investment, drug mafia, and illiteracy decreased the effectiveness of aid in Afghanistan [7]. The health of Afghans has improved over the past decade; however, because of poor management of health system, corruption, low quality of health services, lack of monitoring and control, the absence of a comprehensive national policy on universal health services coverage and incomplete implementation of development programs, Afghanistan has the lowest health indicators among the countries in the region [4].

In recent years, a large amount of aid has been delivered to Afghanistan. There are limited studies addressing aid management and effectiveness in this country. Studies mostly focused on the impact of aid particularly economic effects. Better processes and structures prevent

waste of resources that can be used for other priorities. Since international aid plays an important and fundamental role in Afghanistan's healthcare system, and this system is dependent on it, the way international aid is managed is of great and undeniable importance. The current study examined international aid management in the health sector of Afghanistan from the perspectives of health system managers and donors. It provides areas that require attention of policy makers to increase effectiveness.

Literature review

The main purpose of foreign aid is to reduce poverty and increase economic growth and development in recipient countries [8]. Official development assistance has increased steadily over the past years. Economic growth is a determinant of social development. Studies showed that public expenditure on health and education, and proper income distribution contributed to human development. Study by Gomanee et al. showed effects of international aid on alleviating poverty and infant mortality [9].

This is difficult to determine the real impact of foreign aid because development is a multi-dimensional issue that can be influenced by multiple stakeholders. Moreover, the methodology and scope of the assessment can bring different results. Foreign aid effectiveness has been questioned in empirical studies [10]. In some cases, foreign aid has been remarkably effective. However, there are examples of aid failure [11]. A study in African recipient countries showed that foreign aid did not influence development growth [12]. Another study on 33 aid receiving countries showed that 1% increase in the health aid share of GDP reduced the infant mortality rate by 0.18%. It suggested that the proper management of health aid in developing countries can help to improve public

health in these countries [11]. Another study showed that foreign aid had positive effects on reducing poverty. Aid targeted at pro-poor programs such as agriculture, education, health and other social services has been effective [13].

Aid alone is not enough for achieving sustainable development. It can be effective in countries committed to improving public services and infrastructure and eradicating corruption [14]. Even though the foreign aid has been increased in recent years, the healthcare resources have not been enough to guarantee everyone's access to primary healthcare. There is need for more foreign aid and national investment. The aid should be sustainable, predictable and long-lasting to support health promotion plans. The provision of aid-dependent healthcare services will be disrupted if the donors decrease or postpone the aid [15].

The impact of aid and its effectiveness can be influenced by the way aid is managed. There are many problems in the management of international aid. A large amount of the aid is not received by the recipient government and is spent on unnecessary activities, parallel programs, transaction costs, and donors' office administration. Some aid programs do not focus on the needs and priorities of the recipient country. In addition to improving the situation of the disadvantaged groups in recipient countries, capacity and infrastructure building, and enhancing health system management, and procurement are necessary. They help health system to become independent in future and better use the resources. Some governments believe that conflicts in policymaking lead to the waste of resources. The donors do not have interest in capacity building [15]. Chung and Hwang believe that donors should not determine where and how the resources be used but collaborate with the government to assess the population needs and set the priorities [10].

A study in Syria showed that harmonization of aid and collaboration between stakeholders are prerequisites of aid effectiveness. During 2016–2019, the aid to this country has not been harmonized and correlated with humanitarian needs instead aligning more with donor policies [16]. Another study in Pakistan found that foreign aid has had positive impact on health sector, although in long run, the effect was low. The reason might be that the aid has not been successful in institutional development. If the management of health system does not improve, the aid will create a debate burden [17]. In Ethiopia, the policy "one plan, one budget, one report" and foundation of country ownership and coordination of health partners, donors and governments resulted in accomplishments in healthcare [18].

Paris Declaration on International Aid Effectiveness 2005 offers a series of strategies to commit international donors to accountability and increase aid effectiveness.

This document invites the developing countries to reduce poverty and improve the performance of institutions and eliminate corruption, and the donors to align with the goals of the recipient governments and cooperate with them, optimize the processes and share information to avoid duplication. Developing countries and donors should focus on the results and be accountable for them. Donors and recipient governments should take an integrated approach to aid effectiveness in policy making to improve quality of foreign aid [19].

Most studies focused on the effects of aid on economic growth, poverty and investment. The underlying assumption in Paris Declaration was that changes in process such as reducing aid fragmentation could increase the impact of aid. The Global Partnership for Effective Development Cooperation 2011 suggests the collaboration of governments, donors, private sector and civil society. Without proper management, international aid cannot help decreasing inequality and promoting development [20]. Therefore, it is necessary to study aid effectiveness, processes and management.

Data and method

Data and sample size

This cross-sectional, descriptive and analytical study was conducted in 2022. The research population was the managers of health sector, both public and private, and international institutions based in Herat province of Afghanistan. The participants were chosen by random sampling. Due to the lack of similar studies, the sample size was determined based on Yaman's formula and considering an error of 5% and the population size of 180, that made 110 people.

$$n = \frac{N}{1 + N\alpha^2} = \frac{180}{1 + 180 \times 0.05^2} = 110$$

The inclusion criteria were at least two years of work experience in the health sector or international organizations. Incomplete questionnaires (more than 50% of the items have not been answered) were excluded from the study.

The data collection tool was the standard questionnaire of the International Health Partnership and Related Initiatives. It constitutes nine main dimensions, including donors' support for the national health strategy, predictable financing, foreign aid on budget, public finance management system, procurement system, mutual accountability, technical support and training, civil society engagement and private sector participation, each of which has a number of subcategories and a total of 30 questions [21]. Due to the lack of an Afghan version of this questionnaire, it was translated to local language by two language experts. The content validity of the

questionnaire was qualitatively assessed by 5 experts in the health sector in Afghanistan. The ambiguous items were corrected. The internal consistency of the questionnaire was evaluated by consulting 30 healthcare personnel. The stability, balance and homogeneity of the questions were measured through test and retest with the same people and calculating Cronbach's alpha. The value of Cronbach's alpha was 0.963, which is an acceptable value and shows the reliability of the tool.

Methodology

The data of this descriptive and analytical study was collected by self-administered approach. Descriptive studies (similar to this one) provide a detailed understanding of a phenomenon, while they might have limited generalizability and potential bias.

Questionnaires were presented to the study participants in person or by phone and email. All methods were performed in accordance with the relevant guidelines and regulations. In this study, the questions were scored from 1 to 5 (very poor to very good). The data was analyzed in two descriptive (mean and percentage) and analytical formats in SPSS. Independent variables were gender, education, managerial level and years of work experience. Scores given to each dimension of aid effectiveness were the dependent variables. Independent t-test (for data with normal distribution) or Mann-Whitney test (for data with non-normal distribution) were used to examine the relationships of the scores of dimensions and independent variables such as gender. Variance analysis was used to examine the relationships of scores and multivariate variables (such as education, age, work experience). Variance analysis shows the data's volatility and consistency, which can impact the interpretations of the results. The normality of data distribution of quantitative variables was evaluated using the Kolmogorov-Smirnov test. It is used when there are two samples coming from two populations that can be different. The significance level of the tests was considered 5%.

Results

Descriptive statistics

The average age of the study participants was 42.81 ± 8.36 , the average work experience was 14.65 ± 6.06 years, and the average management experience was 10.25 ± 5 . In addition, 96 people (87.3%) were men, 48.6% had a bachelor's degree, and 41.3% a master's degree. 73 people (67%) were middle-ranked managers. 74 people (67.3%) worked with international organizations and 85.5% completed a training course related to international aid. The knowledge of 15.1% of participants on international aid management was at average level. 64.5% of the participants received information about aid management at

their workplace. 71 respondent (66.4%) studied medical and health programs (Table 1).

Empirical findings

The results of the survey showed that the highest scores were for foreign aid on budget ($39/55 \pm 20.15$), technical support and training ($42/50 \pm 17.33$), and predictable financing ($23/50 \pm 16.02$) and the lowest score was in the field of civil society participation (35.24 ± 18.61) (Table 2). The performance in all dimensions of aid management hardly reached 50%.

More details about the dimensions of evaluation are provided in Table 3. According to this table, the scores in all dimensions were in the range of 30–56. The lowest scores belonged to civil society participation. In general, the scores were very low and proved that all areas of aid management need improvement.

According to Table 4, the managers of Afghanistan's health sector and international organizations based in this country gave the lowest scores to the participation of civil society and the private sector in international aid programs, and the highest scores to considering the foreign aid in the budget. They had similar opinions about different dimensions of international aid management (Table 4).

The relationships between independent variables (gender and education) and the scores of different dimensions of aid management showed no meaningful difference. There were no changes in the dependent variable due the manipulation of these two independent variables. However, between managerial level and work experience with the scores, there was weak relationship (Table 5).

The correlation coefficient showed that between the different dimensions of the questionnaire, there were meaningful relationships which mean the variables change together in the same direction. This indicates the strength of the linear relationship between variables. (Table 6).

Discussion

In this cross-sectional study, international aid management in health sector of Afghanistan has been investigated from the perspective of the managers of health facilities and international organizations based in Herat province in 2022. The average age of study participants was 42.81 ± 8.36 , the average work experience was 14.65 ± 6.06 years, and management experience of 10.25 ± 5.83 years. The majority of participants were men, had a bachelor's degree and worked in middle management positions. A large number of participants worked with international organizations and mostly completed training course related to international aid management. Most of the participants were medical and health graduates. One third of them had fair knowledge about

Table 1 Demographic information of study participants

Variable	Levels	Mean \pm SD	Number(percentage)
Age	-	42.81 \pm 8.36	-
Work experience	-	14.65 \pm 6.06	-
Years of management experience	-	10.25 \pm 5.83	-
Gender	Man	-	96(87.3)
	Woman	-	14(12.7)
Education	High school	-	7(6.4)
	Bachelor	-	53(48.6)
	Master	-	47(43.1)
	PHD	-	2(1.8)
Field of study	Medicine and health	-	73(66.4)
	Nursing and midwifery	-	7(6.4)
	Law, management and economy	-	12(10.8)
	Literature, theology	-	7(6.3)
Managerial level	Low	-	3(2.8)
	Middle	-	73(67.0)
	High	-	33(30.3)
Work experience in international organizations	Yes	-	74(67.3)
	No	-	36(32.7)
Training on international aid	Yes	-	94(85.5)
	No	-	16(14.5)
Awareness about international aid	Very low	-	5(4.7)
	Low	-	16(15.1)
	Average	-	62(58.5)
	High	-	22(20.8)
	Very high	-	1(0.9)
Source of information on international aid	Work experience	-	71(64.5)
	News	-	17(15.5)
	Social media	-	21(19.1)
	Research studies	-	8(7.3)
	Government reports	-	24(21.8)

Table 2 The scores of different dimensions of aid management

Dimension	Mean	SD
Donors' Support for The National Health Strategy	48/64	16/14
Predictable On-Budget Financing	50/23	16/02
Foreign Aid on Budget	55/39	20/15
Public Financing Management System	38/35	19/06
Procurement System	40/97	19/55
Mutual Accountability	46/50	19/26
Technical Support and Training	50/42	17/33
Civil Society Engagement	35/24	18/61
Private Sector Participation	36/00	17/55
Total	44/52	13/27

international aid management. The majority acquired the knowledge through work experience.

The managers of Afghanistan's health system and international organizations believed that the management of international aid in health system of this country was at average level (score: 44.52 \pm 13.27 (44% achievement). The performance was better in the dimension of aid on budget (55%) and the lowest was related to civil participation (36%). A study by the Organization for Economic

Cooperation and Development (OECD) in 34 aid recipient countries showed that all countries were lagging behind the goals set in the Paris Declaration and needed more efforts and cooperation to improve the situation [22]. A study conducted in 2009 on the effectiveness of international aid in Afghanistan showed that the conditions in this country brought about challenges for the effectiveness of aid. These include: persistent insecurity, lack of national and international capacity, multiple and often inconsistent programs, ambiguous goals, unclear lines between military, humanitarian, and development interventions, widespread corruption, and lack of coordination among donors [23].

Donors' support for the national health strategy was not adequate in Afghanistan (score: 50/23 \pm 16.02 (50% achievement). There are challenges in developing national health strategies, control and evaluation of health services, evidence based decision-making and the use of national frameworks. A study in 2020, which investigated the impact of international aid on the growth of Afghanistan's economy, found factors such as the non-cooperation of the Afghan government and donor

Table 3 The details on different dimensions of evaluation

	Indicator	Mean \pm SD
Donors' Support for The National Health Strategy		
1	To what extent have national health strategies with updated goals, budgets and programs been formulated?	50.0 \pm 21
2	To what extent does the control and evaluation system of the country's health sector is comprehensive and includes health service units?	48 \pm 22.3
3	To what extent are decisions based on the evaluation of national strategies?	43.8 \pm 21.3
4	To what extent are the programs of international donors in accordance with national priorities?	50.3 \pm 22.8
5	To what extent do international donors use the national control framework of health sector?	51.5 \pm 20.8
Predictable On-Budget Financing		
1	What proportion of the health financial resources has been distributed based on the approved annual budget?	49.8 \pm 22.3
2	To what extent have health sector contributions been spent based on predetermined plans?	52.3 \pm 20
3	To what extent does the government's long-term budget program cover health centers?	46.8 \pm 23.5
4	To what extent is the government aware of the three-year financial plans of international donors?	52 \pm 23
Foreign Aid on Budget		
1	To what extent do international donors contribute to the budget of the health sector?	56.3 \pm 23.3
2	To what extent has international aid in the health sector been approved by the country's legislators?	54.5 \pm 23.8
Public Finance Management System		
1	To what extent is the country's financial system standardized?	32.8 \pm 22.3
2	To what extent is international aid in the health sector distributed through the standard financial system?	36.3 \pm 24.5
3	To what extent international donors strengthen the financial management system of the public sector?	45.8 \pm 21.8
Procurement System		
1	To what extent has the country's procurement system been supported by international donors?	41.3 \pm 23.3
2	To what extent are the country's procurement systems coordinated and strengthened and used by international donors?	41 \pm 21
Mutual Accountability		
1	To what extent is the progress of the programs evaluated by a bilateral evaluation system (government and international donors)?	48.5 \pm 21.8
2	To what extent are bilateral evaluations on international donors' programs, including aid effectiveness, carried out?	44.5 \pm 21.3
Technical Support and Training		
1	To what extent are technical assistance considered in national policies and programs of health care centers?	48 \pm 22
2	To what extent do health departments benefit from technical supports?	52.5 \pm 22.8
3	To what extent is technical support carried out in accordance with national programs?	49.3 \pm 20.8
4	To what extent do international donors support bilateral and multilateral cooperation?	52 \pm 19.8
Civil Society Engagement		
1	To what extent is civil society involved in health sector development?	33.8 \pm 23.5
2	To what extent do international donors have mechanisms in place to involve civil society in the development of health sector programs?	36.3 \pm 22.8
3	To what extent are there mechanisms for providing information to civil society?	39 \pm 22.3
4	To what extent are civil society activists given training, financial resources and technical support by the government and donors?	31.8 \pm 22.5
Private Sector Participation		
1	To what extent does the private sector participate in the development and implementation of fair, effective and efficient policies in the health sector?	44.5 \pm 25.5
2	To what extent do international donors support private sector participation?	32.3 \pm 24.8
3	To what extent are there mechanisms for informing the private sector?	36.5 \pm 21
4	To what extent do donors use private sector input in programs and provide financial and technical resources?	30.8 \pm 21

countries as an obstacle to aid effectiveness. According to this study, in Afghanistan, there is neither an efficient and effective government institution, nor there are appropriate strategies on the use of international aid [24]. Similarly, the study on the international aid effectiveness in Ethiopia showed that the aid was scattered and there was no coordination between donors and the government and mutual accountability [25]. A study conducted on

international aid dependence and political agreements in Afghanistan showed that aid was usually allocated based on the preferences of the donors rather than the priorities of the recipient country. Aid has largely focused on short-term goals, hindering medium- and long-term progress. Moreover, the aid may not be under the control of the recipient country [2]. Studies on foreign aid in other countries, including Nepal, showed that lack

Table 4 The average scores given by study participants to international aid management in Afghanistan

Dimensions	Scores given by international organizations managers	Scores given by the managers of healthcare facilities of Afghanistan
Donors' Support for The National Health Strategy	48.40	49.14
Predictable On-Budget Financing	57.36	47.74
Putting Foreign Aid on Budget	57.36	51.39
Public Finance Management System	40.63	33.80
Procurement System	42.53	37.85
Mutual Accountability	48.78	41.79
Technical Support and Training	52.40	46.31
Civil Society Engagement	37.07	31.43
Private Sector Participation	37.59	32.68
Total	45.93	41.60

of attention to national preferences disrupted proper response to people's needs [26].

Sometimes, the priorities are defined at global, regional or multi-country programs and often they are not completely aligned with national policies [27]. According to the World Health Organization (WHO), donors and the recipient countries might have different views on population needs [28]. Donors have different histories, experiences, and ideas that affect the projects they prefer to support. Sometimes, the lack of coordination and insularity greatly reduce the effectiveness of aid. For example, there are many international institutions and non-governmental organizations operating in Mali. Each of them has its own strategy, values, culture and work process. Acting in isolation and not integrating the goals with the national policies and structure and the lack of cooperation between the private and public sectors have reduced the effectiveness of aid in recent years [29]. In the allocation of the aid, the less considered issues are usually the goals of the recipient country [30]. The lack of coordination between donors is the most important challenge of aid management. Sustainable and effective change depends on the institutionalization of all policies at the local level [31]. A study by the African Development Bank in 2011 showed that the conflict of interests, weakness of the structures and the lack of capacity were the main challenges of international aid effectiveness. Short-term perspectives disrupt long term development plans [32].

The predictability of financing received an average score ($55/39 \pm 20.15$ (55% achievement)) in this study which shows that the distribution of health financial resources, allocating aid based on the predetermined plans, and financing health centers through government's long-term budget and the knowledge of the government on international donors' programs are problematic. In a study by the Asian Development Bank in 2011, the predictability of development cooperation in Asian countries was evaluated at 78%, which was higher than Afghanistan

[32]. To increase the predictability, it is necessary to have a comprehensive and transparent information system. A case study on international aid effectiveness in health sector of Ethiopia showed that no systematic and comprehensive data on the flow of aid was available [25]. In a study investigating the management of international aid in a developing country showed that transparency was an important indicator for identifying the problems, weaknesses and gaps in various areas of economic development. The study concluded that it is necessary to increase the involvement of interest groups in formulating strategies and policies [33].

According to the study participants, about 55% of international aid was placed in national budget. The donors set different strategies in this regard. For example, Italy recognizes the full ownership of the country's health and medical institutions and gives the responsibility to implement the interventions to the local authorities in Afghanistan [34]. In contrast, spending a large part of Germany's aid outside the Afghan government's system has weakened the government and harmed the accountability of aid recipient institutions [35]. Similarly, conflicting programs or overlapping projects implemented by different donors reduced the effectiveness of aid according to Albanians [33]. In Africa, international aid does not flow through the government's budget system, and is spent by non-governmental organizations or individuals. Local governments do not have enough information about the resources and projects [36]. Another study on the flow of aid in programs to fight tuberculosis, AIDS and malaria showed that there was no coherence between aid at the national level; aid was not flexible and a small part of it entered the government budget [27]. In a study that examined international aid management in Ethiopia, it was found that the government played an important role in coordinating international aid. In this country, there are specific national health programs in which the role of international aid is clear [25].

Table 5 The relationship between demographic variables and scores of different dimensions of aid management

Variable	Categories*	1	2	3	4	5	6	7	8	9	10		
Gender	Man	Mean ±SD	48.62 ± 16.27	50.46 ± 16.68	55.79 ± 20.69	38.74 ± 18.96	40.56 ± 19.63	46.37 ± 18.76	50.82 ± 17.68	34.51 ± 19.22	35.31 ± 17.77	44.47 ± 13.63	
	Woman		48.85 ± 15.83	48.66 ± 10.47	52.68 ± 16.39	35.71 ± 20.26	43.75 ± 19.46	47.32 ± 23.09	47.77 ± 15.03	40.18 ± 13.36	40.63 ± 15.84	44.83 ± 10.95	
	Z		-0.062	-0.553	-0.759	-0.856	-0.714	-0.223	-0.843	-0.843	-1.155	-1.242	-0.094
Education	P-value		0.950	0.594	0.448	0.558	0.475	0.824	0.399	0.248	0.241	0.925	
	High school	Mean ±SD	45.00 ± 13.23	49.11 ± 21.48	60.71 ± 11.25	35.71 ± 20.25	57.14 ± 15.91	55.36 ± 18.90	54.46 ± 14.30	45.54 ± 16.81	41.07 ± 16.48	47.98 ± 11.96	
	bachelor	Mean ±SD	48.65 ± 16.33	51.18 ± 15.75	54.95 ± 20.27	37.18 ± 18.11	40.38 ± 16.63	46.08 ± 17.76	48.20 ± 15.52	35.94 ± 18.39	36.18 ± 18.74	44.29 ± 13.70	
Managerial level	master	Mean ±SD	48.33 ± 16.34	48.40 ± 15.77	54.89 ± 21.81	39.13 ± 20.10	39.13 ± 2.68	45.38 ± 21.30	51.95 ± 19.89	32.61 ± 19.18	34.51 ± 16.60	43.73 ± 13.22	
	PhD	Mean ±SD	62.50 ± 24.75	65.63 ± 4.42	56.25 ± 8.84	58.33 ± 23.57	50.00 ± 0.0	56.25 ± 8.84	59.38 ± 13.26	43.75 ± 17.68	53.13 ± 4.42	56.67 ± 11.79	
	Z		1.835	3.412	0.459	2.176	6.289	2.384	2.492	3.862	3.254	2.443	
Work experience in international organizations	P-value		0.607	0.332	0.928	0.537	0.098	0.497	0.477	0.277	0.534	0.486	
	low	Mean ±SD	68.33 ± 20.82	50.00 ± 33.07	58.33 ± 40.18	41.67 ± 28.87	37.50 ± 33.07	41.67 ± 36.07	41.67 ± 36.07	47.92 ± 15.73	33.33 ± 18.04	45.83 ± 25.26	48.33 ± 25.29
	Middle	Mean ±SD	46.48 ± 16.24	48.80 ± 17.04	52.60 ± 19.90	36.50 ± 19.54	40.67 ± 19.68	44.82 ± 19.91	47.28 ± 17.34	47.28 ± 19.95	34.86 ± 18.07	33.89 ± 13.84	42.95 ± 13.84
Support and training, civil society engagement, private sector participation and total score	High	Mean ±SD	52.19 ± 13.97	53.03 ± 11.60	60.98 ± 18.42	42.42 ± 17.23	43.18 ± 17.42	50.38 ± 16.38	55.30 ± 17.20	36.55 ± 16.17	39.58 ± 15.60	47.83 ± 10.47	
	Z		5.664	1.507	4.252	1.892	0.414	1.707	3.365	0.238	3.189	3.433	
	P-value		0.059	0.471	0.119	0.388	0.813	0.426	0.186	0.888	0.203	0.180	
mutual accountability, technical support and training, civil society engagement, private sector participation and total score	Yes	Mean ±SD	48.40 ± 16.57	51.44 ± 15.15	57.36 ± 18.73	40.63 ± 18.76	42.53 ± 19.19	48.78 ± 18.90	52.40 ± 17.20	37.07 ± 17.81	37.59 ± 17.20	45.93 ± 12.69	
	No	Mean ±SD	49.14 ± 15.46	47.74 ± 17.62	51.39 ± 22.52	33.80 ± 19.10	37.85 ± 20.15	41.79 ± 19.40	46.31 ± 17.11	31.43 ± 19.91	32.68 ± 18.07	41.60 ± 14.14	
	Z		-0.270	-0.924	-1.218	1.663	-1.238	-1.464	-1.541	-1.767	-1.407	-1.520	
P-value		0.787	0.255	0.223	0.096	0.216	0.143	0.123	0.077	0.160	0.129		

*1–10 are respectively donors' support for the national health strategy, predictable on-budget financing, foreign aid on budget, public finance management system, procurement system, mutual accountability, technical support and training, civil society engagement, private sector participation and total score

Table 6 The relationships between different dimensions of the questionnaire

8	7	6	5	4	3	2	1	Dimensions**	
							0.649	Correlation coefficient	2
							0.00	P-value	
							107	number	
						0.610	0.590	Correlation coefficient	3
							0.00	P-value	
							109	number	
					0.570	0.559	0.712	Correlation coefficient	4
							0.00	P-value	
							108	number	
				0.541	0.553	0.476	0.486	Correlation coefficient	5
							0.00	P-value	
							108	number	
			0.624	0.652	0.584	0.476	0.584	Correlation coefficient	6
							0.00	P-value	
							107	number	
		0.658	0.510	0.673	0.594	0.564	0.684	Correlation coefficient	7
							0.00	P-value	
							107	number	
	0.460	0.307	0.400	0.372	0.264	0.398	0.433	Correlation coefficient	8
							0.00	P-value	
							108	number	
0.499	0.445	0.405	0.454	0.400	0.317	0.364	0.424	Correlation coefficient	9
							0.00	P-value	
							108	number	

**1–10 are respectively donors’ support for the national health strategy, predictable on-budget financing, foreign aid on budget, public finance management system, procurement system, mutual accountability, technical support and training, civil society engagement and private sector participation

According to the respondents of this study, strengthening the financial management system of the public sector was not a priority for the donors (achieving 38% of the standard). WHO, in coordination with all key stakeholders in Afghanistan, helps to increase overall resources for health and improve the effectiveness of the investments [37]. However, the study by Dastan et al. about the determinants of financial protection in the health sector of Afghanistan showed that there was an urgent need to strengthen the overall health financing system in order to promote public health in this country [38]. Besharat Hossein reviewed the effects of international aid in Bangladesh and said the aid had little effectiveness due to the limited capacity of Bangladeshi institutions. If the government reforms its institutions and policies, foreign aid can contribute more effectively to the national economy [39]. In another study conducted by the United Nations Conference on Trade and Development (UNCTAD) on international aid allocated to less developed countries, found that donors’ financial resources can be hardly tracked due to the lack of a financial information system. The absence of transparency in spending resources reduced the donors’ trust [31]. A study in Sri Lanka showed that inefficiency of financial resources and weak institutions made foreign aid ineffective. In addition to effective policies, proper monitoring system supported

by donors, and preventing the misuse of resources are needed [40].

Strengthening the supply system of the recipient country is an important part of aid management. It was scored 40.97 ± 19.55 (41% achievement). In Afghanistan, this aspect has not received enough attention. The donors’ support and use of the national procurement system need improvement. A study on the pros and cons of foreign aid in Albania indicated that donors were reluctant to use Albania’s public procurement systems. Strategic agreements between donors and the government, and forming working groups were suggested to adjust the aid flow [41]. The study of the Asian Development Bank on aid recipient countries showed that 47% of the aid flows through the public procurement systems. Further coordination between governments and donors is necessary [32]. The results of this study are similar to the present study.

In the current study, mutual responsibility of the donors and the government was not optimum (score: 46.50 ± 19.26 (46% achievement)). There should be an evaluation system agreed with two parties. According to the report of the OECD, the mutual accountability in Afghanistan is a serious challenge, especially since the government and the donors insist on their own political goals, which creates an atmosphere of distrust and makes

the implementation of programs difficult [22]. Asian Development Bank in 2011 indicated that countries were scored 54% in establishing mutual accountability and supporting the government in achieving its goals [32]. A study on foreign aid policy and its effect on Nepal's growth showed that the capacity of country's economy to implement programs was less than satisfactory due to the lack of proper information system and regular monitoring [42]. In Nigeria, the donors needed to monitor the implementation of plans and effective use of foreign aid. Without making political, economic and institutional reforms, the massive influx of foreign aid will be futile [43]. A review of foreign aid in Africa in 2012 concluded that responsible governance in this continent is a key to economic development [44].

Technical support and training help the recipient countries to better contribute in implementing the programs. Considering technical assistance in national programs and health strategies and supporting multilateral cooperation are necessary. The score of technical support in this study was 50.24 ± 17.33 (50%). The study of the Asian Development Bank showed that 45% of the donors paid attention to capacity building and education in recipient countries [32]. The Geneva Conference 2018 addressed the development of infrastructure and sustainable development in developing countries. The Kabul Conference 2010 focused on the rule of law and good governance and development. The International Monetary Fund supported establishing flexible and sustainable systems for health in Afghanistan [45]. In recent years, the spending on improving health sector management and policymaking has increased significantly. The aid focused on strengthening the health system through capacity building and planning [46]. In the absence of a proper support system, the aid is spent on daily affairs and does not lead to the transfer of technology and enhancing the capabilities of the country [47].

According to the WHO, low salaries and inappropriate working conditions discouraged the few skilled managers and entrepreneurs to participate in international aid projects in Afghanistan. The shortage of female health-care providers is evident in this country [28]. The United States Agency for International Development (USAID) launched a midwifery training program to increase the number of female health workers and give women more access to necessary care. USAID created a system for monitoring and supported national diseases information system [48]. A study showed the need for skilled and knowledgeable managers committed to national values, and teamwork to determine priorities and establish a strong monitoring system. Unbalanced distribution of resources, lack of coordination, unnecessary costs, low efficiency and the lack of infrastructure are among the challenges of the country's reconstruction process [49].

There have been various studies on the effectiveness of training provided by donors. The program of transferring technical skills to Afghan government employees by Germany has not been successful enough due to the lack of a monitoring system. Trained employees would not like to work in government facilities due to low wages. After acquiring the necessary skills, they are attracted to non-governmental organizations. Enhancing aid effectiveness requires a change in human resources strategies and enhancing security [35].

Civil society involvement in health sector programs and development is essential. The society should be empowered by receiving information, technical support and opportunities to participate. The Ministry of Health and the World Bank play important roles in supporting healthcare projects through non-governmental organizations [50]. However, this study showed that civil participation was not adequate (score: 35.24 ± 18.61 , (35% achievement)). A study in Albania concluded that the technical assistance and capacity building provided by donors and increasing the awareness of the civil society were among the benefits of aid assistance [41]. In Nepal, civil participation in country's development is a challenge. Similar to Afghanistan, this country has religious and linguistic diversity, which together with its uneven terrain and inefficient government acts as an obstacle to national unity for growth [42]. Civil society needs information to participate in aid management. This information should be understood and analyzed by the civil society and encourage cooperation [51]. According to OECD, non-governmental organizations and the private sector are weak in developing countries. Lack of capacity hinders them to play their role in the development of the country [22].

Private sector participation received the lowest score (36 ± 17.55 (36% achievement)), among different dimensions of aid management in Afghanistan. Private sector participation in the development and implementation of health sector policies needs donors' support, information, and financial and technical assistance. The donors can achieve the goals of aid with the support of the private sector and the government. Because of people's lack of trust to the government administrative system and the desire to achieve tangible results, the private sector compete with government organizations in attracting donated resources, but still they are depended on the support of the government. Some countries, such as the Netherlands, make financial support subject to allocating a part of the aid budget to non-governmental organizations. But, in low-income countries, this organizations do not have enough skills, information and power to cooperate with donors [52].

In recent years, the private sector has grown in Afghanistan. The government is determined to develop a solid

policy framework and establish institutions and systems aimed at ensuring higher quality private services and a long-term and sustainable role for the private sector. Afghanistan is at the beginning of privatization; evidence shows that the Ministry of Health can promote a more efficient and effective private sector [53]. Based on the report of the UNCTAD, if donors cooperate with the private sector and civil society to set priorities and implement programs, the aid can be effective [31].

Conclusion

The performance in all dimensions of aid management hardly reached 50%. The managers of Afghanistan's health sector and international organizations based in this country believed that international aid management in Afghanistan's health sector needs to be improved. The standards of the Paris Declaration on Aid Effectiveness could be helpful in this regard. According to the studied managers, the best dimension of aid management was the inclusion of international aid in government budget. However, civil society involvement and the private sector participation in planning and implementing aid programs was not satisfactory.

This study showed the areas of aid management that needs improvement in Afghanistan. According to the results, in order to improve international aid management, it is necessary to improve the resources management with the cooperation of international donors, to strengthen health planning, and to develop an effective administrative and management system. Promoting transparency, accountability, and fighting against corruption are the prerequisites of aid effectiveness. Economic and social development and investment in infrastructure and cooperation between the government and donors and the private sector will improve public governance. Finding ways to reduce the dependence of the health sector on international aid will be a sustainable solution. The government of Afghanistan should determine the needs of its population and direct the aid towards the priorities of the country which cannot be achieved with government budget.

Study limitations and future studies guidelines

Data collection coincided with the change of government in Afghanistan. The participants of the study stated that due to the extensive changes in administrative and management structures and unclear processes, their opinions addressed the situation before the changes in 2021. Still, this study provides areas for the improvement of aid management in the studied country. Future studies can build upon the findings of this research and conduct in-depth exploration of areas of aid effectiveness and designing detailed programs of improvement. A

joint plan for improvement and collaboration of different stakeholders is needed.

Abbreviations

GDP	Gross Domestic Product
OECD	Organization for Economic Cooperation and Development
USAID	United States Agency for International Development
WHO	World Health Organization
UNCTAD	United Nations Conference on Trade and Development

Author contributions

FK designed the study and supervised it; NR: collected data and wrote the report; HSH and JJ: designed methods and analysis; LA: wrote the paper;

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Data availability

Data are not publicly available to preserve individuals' privacy.

Declarations

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

Ethics approval and consent to participate

The study protocol received the code of ethics from the Graduate Education Committee of Mashhad University of Medical Sciences, Iran (code of ethics: IR.MUMS.REC.1400.372). Informed consent was acquired from all participants after explaining the purpose of the research, and answering their questions. They could withdraw from participating in the research at any time. The principles of confidentiality and research ethics were followed.

Ethical guidelines

All methods were performed in accordance with the relevant guidelines and regulations.

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