

Knowledge and perception of oral health professionals regarding the National Health Insurance

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ABSTRACT

Background

Oral health professionals (OHPs) are key stakeholders in the implementation of the National Health Insurance (NHI) in South Africa. Therefore, the views of this cohort on the NHI are invaluable to the successful implementation of the programme.

Aim

The aim of the study was to explore the perception of OHPs regarding the NHI.

Setting

This national study was conducted with eligible OHPs in South Africa.

Methods

A descriptive cross-sectional survey was conducted with 377 OHPs. Data was collected using an electronic semi-structured questionnaire. Statistical Package for Social Sciences version 28 was used to analyse data.

Results

Of the 377 respondents, the majority were female (58.9%), dentists or specialists (52.0%), public sector employees (53.6%), had a postgraduate qualification (58.4%) and had a maximum 10 years' working experience (67.6%). Overall, most participants (231 = 61.3%) were knowledgeable and had positive expectations about the NHI. Yet, 180 (47.7%) perceived the NHI would have a deleterious impact on the private sector and oral health in general 203 (53.8%). A total of 165 (43.8%) OHPs believed the NHI would fail, while 287 (76.1%) thought the NHI should be amended or combined (210 = 55.7%) with existing medical schemes.

Conclusion

OHPs were knowledgeable and positive about the NHI.

However, serious concerns prevail in this cohort regarding implementation and impact of the NHI, especially in the private sector.

Keywords

Knowledge, perceptions, National Health Insurance.

INTRODUCTION

Many countries in the world have considered universal health coverage (UHC) to create a more accessible and equitable health system. Various permutations of the UHC are operational in the United Kingdom (UK), United States (US), Canada, South Korea, Sri Lanka Brazil, Ghana and Nigeria.^{1-2,3,4} The UHC has achieved variable successes and failures in many jurisdictions. Fiscal challenges and the inability of governments to raise critical revenues has contributed to the demise of the UHC in most developing countries.⁵ Other economic factors that threaten the success of UHC include a high unemployment rate, large informal sector and poor revenue collection mechanisms.

The need for health reform has been part of the South African landscape for time immemorial. The debate about health financing reforms dates back more than 80 years. The Commission on Old Age Pension and National Insurance (1928) and the Committee of Enquiry into National Health Insurance (1935) were the first mechanisms to propose the establishment of a health insurance scheme for low-income employees in urban areas.⁶ This idea remained dormant until the 1942, with the establishment of the Gluckman Commission.⁴ This commission proposed (i) the establishment of a fully tax funded National Health Service (NHS) and (ii) establishment of a network of primary health care (PHC) centres to increase access to care for all South Africans.⁴ These recommendations are key features of the current NHI model.

The 1980s witnessed health financing reforms and the proliferation of private health care services. Unfortunately, the privatisation of health care did not curtail health care costs and expenditures or improve access to care. Instead, the current two-tiered health system in South Africa continues to experience rising costs of care, wastage and inequity.^{4,7} The seminal report by Professor Taylor titled the "Committee of Inquiry into a Comprehensive Social Security for South Africa"⁷ represents the genesis of the NHI in South Africa. This committee is credited for providing a framework and the roadmap towards the realisation of the NHI. In August 2009, the Ministerial Advisory Committee on National Health Insurance was established which gave effect to the 2007 African National Congress (ANC) National Conference Resolution 53.⁷

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Table 1: Descriptive characteristics of study participants (n=377)

Variable	n (%)
Gender	
Female	222 (58.9)
Male	155 (41.1)
Category of Professional	
Oral hygienist	111 (29.4)
Dental therapist	70 (18.6)
Dentist + Specialists	196 (52.0)
Qualification	
Bachelor's degree	182 (48.3)
Postgraduate diploma	99 (26.3)
Master's degree	96 (25.5)
Employment sector	
Public	202 (53.6)
Private	110 (29.2)
Both	65 (17.2)
Work experience (years)	
1-5	144 (38.2)
6-10	111 (29.4)
11-15	53 (14.1)
16+	69 (18.3)

Since the adoption of the NHI by the ruling party, several policy papers have been promulgated for public comment and debate, culminating in the 2017 White Paper on the NHI. Like most UHC schemes, the White Paper on NHI states that:

"National Health Insurance (NHI) is a health financing system that is designed to pool funds to provide access to quality, affordable personal health services for all South Africans based on their health needs, irrespective of their socioeconomic status. NHI is intended to ensure that the use of health services does not result in financial hardships for individuals and their families."

According to the gazette, the South African NHI will be implemented in three phases spanning a 14-year period. To date the NHI is yet to be implemented due to a plethora of challenges, namely financial and operational. Regarding financial challenges, South Africa has one of the highest GINI coefficients of 0.7 well above the Organisation for Economic Co-operation and Development (OECD) average of 0.3 and the BRICS average of 0.5; a small tax base, an

underperforming economy and low economic growth.⁸ These factors render the NHI costly to finance and too expensive to run. The state will be required to borrow beyond its ability to repay. Recent downgrades by credit rating agencies,⁹ the energy crisis¹⁰ and greylisting¹¹ have worsened the prospects of attracting borrowings for the country.⁸

Operationally, the state lacks the efficiency to effectively manage a large fund under a single-tier medical scheme. The failure of the public health system and GEMS provides uncontested evidence of the lack of capacity of the state to implement the NHI. For most, the NHI is tantamount to a "health state-owned enterprise" (SOE) and likely to be exposed to corruption and mismanagement. Currently, most public health facilities in South Africa are underfunded, underresourced and in a state of disrepair. Hence the difficulty to attract and retain talent, despite massive shortages.

Global evidence indicates that the availability of human resources is the most critical success factor of any UHC. Confidence, buy-in and the attitude of health professionals towards health systems reforms is necessary for the successful implementation of any UHC scheme. Several studies have correlated physicians' opposition to the UHC to the ultimate failure and collapse of the plan.^{12,13} Surveys undertaken among health professionals reveal a positive attitude towards the UHC. The idea of UHC is generally supported by health professionals worldwide.^{12,14} However, the observed differences in perceptions about the UHC relate to the proposed structure and implementation of the schemes. There are limited studies in South Africa that canvassed the views and perceptions of health professionals on the NHI. It is still unknown whether doctors are willing to participate in the NHI and whether doctors are confident in the proposed structures for the successful implementation of the NHI. This study, which we believe is the first, seeks to appraise the views of oral health professionals about the NHI. The opinions expressed by this cohort are important in the development of the model for the delivery of oral health services under the NHI.

METHODOLOGY

Study design

This national descriptive cross-sectional survey included all oral health professionals (OHPs) in South Africa.

Study population

The lists of registered and practicing OHPs were obtained from the HPCSA and Dental Associations (SADA, OHASA, DENTASA, DPA). As of April 2020, there were 8056 registered

Table 2: Knowledge and expectations of respondents about the National Health Insurance

	Knowledgeable
The NHI is a financial innovation of the health system	291 (77.2)
The NHI is a morally necessary intervention by the state	265 (70.3)
The NHI will improve access to oral health services	258 (68.3)
The NHI will ensure that the government provides quality healthcare for all	260 (69.0)
Quality of healthcare will improve under the NHI	243 (64.5)
The NHI aims to eliminate high out-of-pocket payment	282 (74.3)
The same standard of care will be expected under the NHI from private and public healthcare providers	296 (78.5)
The NHI will ensure service providers are of the required standard	285 (75.6)
The NHI is a Health SOE (state-owned enterprise)	240 (63.7)
Overall, knowledge and expectations about NHI	231 (61.3)

Table 3: Perceived impact of the National Health Insurance on the oral health sector

	Agree
The funds for oral health under the NHI will be severely reduced	242 (64.2)
The NHI will lower the standards of oral health	159 (42.2)
The provision of oral health under the NHI will be compromised	158 (41.9)
Management of oral health under the NHI will be severely compromised	192 (50.9)
Overall, the NHI will have a negative impact on oral health sector	203 (53.8)

OHPs to constitute the sampling frame. Using the Raosoft software, the sample for the study was estimated to be 400 based on the following assumptions: (i) $\alpha = 0.05$, (ii) precision (95%), (iii) finite population of all HPCSA registered OHPs. This number was further stratified by type of profession to achieve weighted or proportional representation.

Data collection and tool

A self-administered questionnaire was developed based on similar studies and was piloted on 25 OHPs. Necessary changes and corrections were implemented, and the data from the pilot was excluded from the analysis. The questionnaire consisted of five sections, namely: Section A: Demographics characteristics of the participants; Section B: Appraised knowledge about the NHI; Section C: Evaluated perceived impact of NHI on oral health sector; Section D: Assessed the perceived impact of NHI on the private health sector; and Section E: Asked the participants on the fate of NHI. The questions were scored on a 4-point Likert scale (1 to 4 representing strongly agree to strongly disagree). The questionnaire was developed in Microsoft Forms and emailed to eligible participants. Consent was sought prior to taking part in the study. Data was collected over a three-month period to reach the required sample size.

Data analysis

Statistical Package for Social Sciences (SPSS) version 28.0 was used for data analysis. The overall scores were computed by adding the scores of questions in section B, C, D and E. The dichotomous variables were created for the overall scores using the median as a cut-off point. Similarly, a dependent dichotomous variable was created based on two questions from section E (should NHI be aborted? and should NHI be amended?). The predictors of the outcome were entered into a multivariable logistic regression to calculate the adjusted odds ratios (AOR). All the inferential statistical tests were considered significant at $\alpha = 0.05$ or 5%.

Ethical consideration

Ethical approval for this study was granted by one of the health science universities in South Africa. (SMUREC/D/119/2021: PG) Participants gave informed consent before commencing with the study. All the data was aggregated and anonymised and cannot be linked to any individual.

RESULTS

Demographic characteristics of practitioners

A total of 377 oral health professionals participated in the study, giving a response rate of 94.25% which was adequate for the study. Most of the participants were female (58.9%), dentists or specialists (52.0%), public sector employees (53.6%), had a postgraduate qualification (58.4%) and had a maximum 10 years' working experience (67.6%).

Knowledge of NHI by practitioners

Overall, most participants (231 = 61.3%) were knowledgeable and had positive expectations about the NHI. According to Table 2, most oral health practitioners understood the NHI to be a financial innovation (77.2%) with a strong moral basis (70.3%). Upon implementation of the NHI, 74.8% of the practitioners expected that out-of-pocket fees would be eliminated. As many as 75.6% OHPs believed that NHI would improve quality of care, making the standard of public and private care the same (78.5%). However, a significant number (63.7%) of the professionals believed the NHI was another state-owned enterprise targeting health care (Table 2).

Perceived impact of the NHI on the oral health sector

A total of 203 (53.8%) respondents believed the NHI would have deleterious impact on oral health. Most OHPs (64.4%) indicated that funding for oral health will be severely reduced under the scheme. Yet, there was overall positivity about the expected standards and provision and management of oral health under the NHI (Table 3).

Perceived impact of the NHI on the private sector

Some 180 (47.7%) respondents believed the NHI would have a negative impact on private practice and practitioners

Table 4: Perceived impact of the National Health Insurance on private sector

	Agree
Under the NHI, practitioners will find it easier to enter private practice	186 (49.3)
The NHI will increase the number of patients in private practice	218 (57.8)
The NHI will lead to reduced funding for private patients	235 (62.3)
Fees for service will reduce drastically under the NHI	229 (60.7)
The NHI will bankrupt the practitioners	171 (45.4)
The NHI will lead to closure of private practice	173 (45.9)
The NHI will bankrupt medical schemes	181 (48.0)
The NHI will wipe out existing medical schemes	163 (43.2)
Overall, the NHI will lead to deleterious impact on private sector	180 (47.7)

in the sector. As many as 43.2% of practitioners strongly agreed the NHI would wipe out medical schemes funds, bankrupt schemes (48.0%) and result in closure of practices (45.9%). While the NHI could result in an increase in number of patients (57.8%), the funding for oral health will reduce drastically under the NHI (62.3%). These features of the NHI will make entering private practice difficult for most practitioners (50.7%) (Table 4).

Views of the practitioners regarding the fate of the NHI

Few respondents indicated the NHI programme was likely to fail (165 = 43.8%) and therefore should be aborted (117 = 31.0%). This is contrary to a significant majority advocating for the NHI to be amended (76.1%) or combined with existing medical schemes (55.7%) (Table 5).

Multivariable logistic regression analysis was undertaken to model the relationship between outcome (abort or amend the NHI) and independent variables. The following predictors were included in the models, (i) knowledge of the NHI; (ii) impact of NHI on oral health; (iii) impact on NHI on private sector; and demographic variables. The logistic regression analysis revealed that the independent predictors of the need to abort the NHI are the perceived negative impact on oral health in general (OR = 3.42) and impact on private practice (OR = 2.21). Practitioners with adequate knowledge of the NHI did not favour abortion of the programme, but that it be amended instead (OR = 0.160) (Table 5).

DISCUSSION

This study investigated the knowledge and perceptions of oral health professionals regarding the proposed NHI. The results indicate that OHPs were more knowledgeable and informed about the proposed scheme (231 = 61.3%), which is consistent with observations by Adeniyi and Onajole. The increased levels of awareness and knowledge about the NHI among the OHPs can be attributed to their proximity and investedness in the policy, financing and health reforms. Naturally, OHPs will be inclined to participate, advocate and influence the conceptualisation and implementation of any health programme, including the NHI. There is consensus among the participants about the need for the NHI (265 = 70.3%) and the positive impact it might have on the health system (243 = 64.5%). Several South African studies indicate that the NHI is broadly accepted and preferred to the current two-tiered system.^{15,16,19} This sentiment is shared globally regarding any form of universal coverage and related health reforms.¹⁶ The guiding principles of UHC are widely uncontested as a mechanism for the realisation of accessible health care for all without any financial hardship.¹⁷

The OHPs and other health professionals agree that, under the NHI, out-of-pocket payments will be eliminated, disparity between public and private health care minimised and the quality of care will be improved.¹⁵ These findings provide evidence about the positive contribution of the NHI in ensuring equitable access to quality care for all.

However, serious concerns persist about the successful implementation of the NHI and the impact its failure could have on the healthcare system in general. A total of 240 (63.7%) OHPs indicated that NHI was another state-owned enterprise (SOE) fraught with corruption and misappropriation of funds. Similar concerns of fraud and corruption constitute a major bane for the NHI.¹⁵ SOEs play an important role in fostering economic growth through the provision of services that enable economic activity and development. The successful implementation of the NHI is dependent on the (i) ability of the scheme to secure critical and adequate funds (ii) strong governance and impeccable administration; and (iii) adequate resources such as infrastructure and personnel. With the current economic state, the country is unable to raise the estimated R256bn per year to fund the NHI.¹⁸ South Africa is still flirting with the edge of its fiscal cliff, caused by poor service delivery, the energy crisis, deplorable financial management and corruption. Consequently, the state is thus unable to stimulate the economy, attract critical investments, create jobs and ultimately collect the tax to fund public projects such as the NHI.

Additionally, the NHI Bill poses serious governance and oversight challenges. The bill does not promote independence of the NHI board. Chapter 4 (12) of the bill states that "A Board that is accountable to the Minister is hereby established to govern the Fund in accordance with the provisions of the Public Finance Management Act". The minister is thereby empowered to appoint the board of the largest SOE in the country. The present bill does not provide safeguards and guarantees for an independent board; neither does the bill prescribe a mechanism to regulate and ensure that the minister is not corrupted. Instead, the bill has centralised the decision-making power in the minister, which presents a potential conflict of interest. Commentators suggest that the fund would be better served if it was accountable to parliament thereby limiting the vulnerability of the minister to potential external influences.

South Africa's public health system is not endowed with adequate and functional infrastructure. It is on record that the public health service has deteriorated to the brink of collapse or state of disrepair. These institutions are underresourced to be able to always provide basic services to all. Another challenge facing the public health service is the ability to recruit and retain talent. Human resources and infrastructure are critical for any health system reform to succeed.⁸ Corruption, nepotism and mismanagement are blamed for the current status quo, further validating the assertions that unless the NHI Bill changes with respect to the governance and role of the minister, the NHI will not succeed.

Despite these fiscal and governance challenges faced by the health sector, only 180 (47.7%) of OHPs are of the opinion the NHI will have a deleterious impact on the private sector. Similar findings were reported by Bezuidenhout, in

Table 5: Fate of the National Health Insurance

	Yes
The NHI is likely to fail	165 (43.8)
The NHI should be aborted	117 (31.0)
The NHI should be amended	287 (76.1)
The NHI should be combined with existing medical schemes	210 (55.7)

Multivariable logistic regression of independent predictors of outcome (NHI should be aborted)

		β	p-value	OR (95% CI)
Gender	Female	-		1
	Male	.013	0.96	1.01 (0.57: 1.81)
Cadre	Oral Hygienist	-		1
	Dental Therapist	-0.63	0.17	0.54 (0.23: 1.22)
	Dentist and Specialist	-0.42	0.29	0.67 (0.33: 1.30)
Sector	Public	-	.	1
	Private	-0.19	0.56	0.83 (0.44: 1.57)
	Both	-0.74	0.08	0.48 (0.21: 1.08)
Qualification	Bachelor's degree	-		1
	Postgraduate diploma	0.44	0.23	1.55 (0.78: 3.17)
	Master's degree	0.80	0.03	2.22 (1.07: 4.60)
Experience (years)	0-5	-		1
	6-10	-0.27	0.44	0.76 (0.37: 1.53)
	11-15	0.31	0.48	1.34 (0.57: 3.23)
	16+	0.001	0.99	1.00 (0.49: 2.24)
Knowledge of NHI	Inadequate	-		1
	Adequate	-1.85	< 0.001	0.16 (0.09: 0.29)
Impact on Oral Health	Not negative	-		1
	Negative	1.23	< 0.001	3.42 (1.78: 6.56)
Impact on private practice	Not negative	-		1
	Negative	0.79	0.008	2.21 (1.23: 3.96)
Constant		-0.35	0.54	
Model Chi-square 167.1; p<0.001				
Percentage correctly predicted 80.9%				

which 5.49% of the respondents thought the NHI would destroy the private sector. We speculate that unsatisfactory consultation processes might contribute to diminishing trust in the NHI. Several groups in the health workforce have lamented the way consultations were undertaken, and their views canvassed.¹⁹

Overall, only 165 (43.8%) of OHPs believe the NHI will fail and must therefore be aborted (117 = 31.0%). On the contrary, 287 (76.1%) of OHPs indicated the NHI required amendments, including combining it with existing medical aid schemes (210 = 55.7%). Oral health practitioners understand the moral and ethical imperative of the NHI and the positive transformative impact it could have on the health system in general. However, concerns remain about the implementation of the NHI, hence calls to incorporate the NHI into the existing and predictable medical schemes.

CONCLUSIONS

This study found that oral health professionals had adequate knowledge about the NHI, its moral and social underpinnings and benefits. Although OHPs supported the implementation of NHI, concerns were raised regarding governance, corruption and mismanagement. The majority of practitioners indicated the NHI needed reform, including incorporation into existing schemes.

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