

Original Research Article**PERCEPTION AND SATISFACTION OF EMPLOYEES WITH NATIONAL HEALTH
INSURANCE SCHEME SERVICES AT UNIVERSITY COLLEGE HOSPITAL, NIGERIA****ABSTRACT**

Aim: To assess perception and satisfaction of employees with National Health Insurance Scheme (NHIS) Services to ensure quality NHIS services for all employees in health institutions.

Study Design: Descriptive cross-sectional design.

Place and Duration of Study: Department of Clinical Nursing, Department of Physiotherapy, Department of Health Information Management, Department of Medicine, Department of Medical Laboratory, Department of Administration Services, Department of Accounting, Department of Engineering, Department of Public Relation, Department of Social Work and Department of Radiography, University College Hospital (UCH), Nigeria between February, 2016 and March, 2016.

Methodology: We included 350 employees (162 males, 188 females; mean age 34.6 ± 1.7) with or without full registration with NHIS. Knowledge of respondents with NHIS, problems encountered during registration with NHIS, perception with NHIS services, factors hindering effective utilization of NHIS services among respondents as well as satisfaction of the respondents with NHIS services were assessed. Self-administered questionnaire was used for data collection.

Results: Out of calculated 426 sample size, 350 questionnaires were fit for analysis giving rise to 82% response rate. P -value was $=.05$. Out of 350 employees, 180 employees had good knowledge while 170 had poor knowledge about NHIS program. One hundred and forty-seven

and 70 employees rated NHIS services as good and excellent respectively. Only 170 employees were satisfied with the services of the scheme. Chi-Square analysis revealed that employees' ethnicity was not significant with their perception of NHIS services. Also employees' gender was not significant with their level of satisfaction with NHIS services.

Conclusion: Low satisfaction with NHIS services by employees of health institution may result to under utilization of the scheme. This may jeopardize their health, leading to low productivity. However, further study needs to be done among employees of other sectors.

Keywords: *Employees, National Health Insurance Scheme, Perception, Satisfaction*

1. INTRODUCTION

The sustainability and viability of a country's economic and social growth depend largely on vibrant healthcare sector of that nation. While health care needs is increasing, government expenditure on health in developing countries is declining, and government expenditure on health in sub-Saharan Africa has severally been described as being inadequate, insufficient, inequitable and unsustainable. The burden of paying for health care has been a performance indicator for assessment of national health systems. [1] According to [2] health care financing and health sector reform have engaged the attention of policy makers in the World with the focus centered on reviewing the ways their health systems are financed. In developing countries, which are mostly in Africa, Asia and Latin America, the basic problems are failure to finance healthcare with pervasive under funding and insufficient financial resources to provide minimally adequate healthcare for everyone's needs. Appreciating the central role of health as a necessary ingredient for socio-economic development, the government of these countries were forced to review their policies on healthcare financing in order to put in place more realistic, efficient and sustainable sources of funds for the health sector among which is National Health Insurance Scheme (NHIS). [2] The principal aim is to reduce the high dependency on out-of-pocket (OOP) payments in form of user charges and co-payments, which are regressive as they disproportionately affect the poorest in society, and therefore challenge the underlying tenets of equity within healthcare systems. [3,4,5]

49 **Problem Statement**

50 Majority of Nigerians cannot afford and access health care services because it is beyond their reach,
 51 statistics puts 70.2% of Nigerians as living below the poverty line of USD of 1.00 per day which
 52 encourages the vicious cycle of poverty, ignorance and disease. [2] Despite the introduction of NHIS in
 53 Nigeria over eight years ago, current coverage is below 20% of the intended population. [6]
 54 Unsatisfactory experiences of enrollees in the scheme include inadequate drug supplies, poor
 55 prescriptions of drugs, poor attitudinal disposition of some health workers, poor registration services, poor
 56 referral system and delays in receiving required services. [7] Health service facilities at all levels are
 57 dilapidated, poorly equipped or dysfunctional. [8] The continued stagnating healthcare system in Nigeria
 58 is of great social, economic and health consequence to all including the work-force. [1] Lack of access to
 59 quality health care by the work-force will lead to their poor health status, absenteeism at work, reduced
 60 productivity, financial drain/burden, and psychological problem among other things. This will affect
 61 economy and government's expenditure on the implementation of basic needs for the people.

62 **Proposed Solution:** There is an urgent need for a sustainable and equitable strategy to eliminate
 63 physical, social, emotional/psychological and financial barriers to healthcare. Government, policy-makers
 64 and other stakeholders such as **HMOs**, health institutions as well as healthcare providers must ensure
 65 proper implementation of NHIS services in Nigeria. This will foster and maintain provision of effective,
 66 comprehensive, and satisfactory healthcare services at affordable costs for all employees.

67 **Literature Review**

68 **Knowledge of the Respondents about NHIS:** Findings from **[9]** in a survey on perception of dentists in
 69 Lagos state revealed that 61% had only a fair knowledge of the NHIS but 76.6% believed it would expand
 70 access to dental care by improving affordability and availability of services. A survey on the knowledge
 71 and attitude of civil servants in Osun State, Southwestern Nigeria towards the NHIS documented that
 72 none had good knowledge of the components of NHIS, 26.7% knew about its objectives, and 30% knew
 73 about who ideally should benefit from the scheme. [1]

Problems Encountered by Respondents during Registration with NHIS: A study by [10] in an assessment of awareness level of NHIS among health care consumers in Oyo State, Nigeria revealed that 72% of respondents claimed that they were not promptly attended to by their providers and hence wanted the programme discontinued. Another study by [11], which addressed the issue of access constraints for government employees in Abakaliki, Ebonyi State, found that NHIS enrollees had little difficulty in accessing health care compared with those relying on OOP payments.

Perception of Respondents with NHIS Services: A study to assess the impact of the NHIS in promoting access to healthcare identified the ineffectiveness of the scheme. [12] Another study to evaluate the impact of NHIS on healthcare consumers among 200 participants in Calabar metropolis, Southern Nigeria, documented that 108 (54.0%) respondents agreed that the quality of health care services rendered was better than before while, 77 (38.5%) respondents felt the quality of health services was the same as before. Only 15 (7.5%) respondents said that health services rendered is worse than before. [13]

Factors Hindering Effective Utilization of NHIS Services: In a survey on users' satisfaction with services provided under NHIS in South Western Nigeria 60% of respondents encountered problems with their healthcare providers. These include long-queues, poor reception from unfriendly health workers, inefficient treatment, and unclean environment. [14] In another study on perception and experiences of healthcare providers and clients in two districts in Ghana revealed that most of the insured experienced long waiting times, verbal abuse, not being physically examined and discrimination in favor of the affluent and uninsured. [15]

Level of Satisfaction of Respondents with NHIS Service: In a study on users' satisfaction with services provided under NHIS in South Western Nigeria 55.6% of participants were satisfied with drug services, 56.2% with healthcare provider services, 77.8% with waiting time, 51.7% with staff attitude, 45.3% participants were satisfied with the process of enrollment, while 49.5% with range of services covered by NHIS. [14] In a study to evaluate the impact of NHIS on healthcare consumers among 200 participants in Calabar metropolis, Southern Nigeria, [13] affirmed that 72.0% of respondents were either very satisfied or satisfied with the performance of the scheme; while, 28.0% were very dissatisfied or

101 dissatisfied with the performance of the scheme. A study among staff of Ahmadu Bello University (ABU)
102 Zaria to assess client's satisfaction with the NHIS in Nigeria reported low satisfaction which is attributed
103 with longer duration of enrollment. [16]

104 **Scope of the Study:** Study was carried out to: assess knowledge of the employees with NHIS, determine
105 problems encountered by employees during registration process with NHIS, determine perception of
106 employees with NHIS services, determine factors hindering effective utilization of NHIS services among
107 employees and to assess level of satisfaction of employees with NHIS services.

108 **Research Hypotheses**

109 **H₀1:** There is no significant relationship between respondents' perception of NHIS services and their
110 ethnicity.

111 **H₀2:** There is no significant relationship between respondents' level of satisfaction with NHIS services
112 and their gender.

113 **Justification of the Study:** Studies on perception and satisfaction of health workers with NHIS services
114 in Nigeria since its commencement in 2005 are limited. The facility was chosen for the study because it is
115 one of the health institutions in Nigeria with highest number of employees that is providing NHIS services
116 to employees. This study was aimed to assess the perception and satisfaction of employees with NHIS
117 services at UCH, Nigeria. Findings from this study will serve as a guide for the institution and Nigerian
118 Government in policy formulation and implementation in areas related to NHIS services in ensuring
119 effective, wholesome and accessible NHIS services for employees in Nigeria. Furthermore, the study will
120 also add to the body of knowledge on NHIS services and will guide future researchers on NHIS services
121 in Nigeria.

122

123 **2. MATERIALS AND METHODS**

124 **Study Design:** Descriptive cross-sectional design.

125 **Target Population:** This consisted of employees who were fully **or not** registered with NHIS.

126 **Sampling Technique:** A multi-stage sampling technique was used to choose **eleven out of sixty-six**
127 departments in the study setting.

128 **Stage 1:** eleven out of sixty-six departments were chosen at random using simple random technique
129 through balloting system.

130 **Stage 2:** **convenient sampling technique was used.** Questionnaires were administered to employees in
131 the chosen departments who were met on duty and consented to participate in the study until the
132 anticipated ~~426~~ sample size was achieved.

133 **Sample Size Calculation:** Formula: $n = \frac{Z\alpha^2 pq}{d^2}$

134 Where, n = Minimum sample size, $Z\alpha = 1.96$

135 $p = 51.7\%$ (Proportion of enrollees who were satisfied with attitude of NHIS staff in a study on users'
136 satisfaction). [14]

137 $q = 1-p$

138 $d = \text{Degree of precision } (5\% = 0.05)$

139 Therefore, n (minimum sample size) = $3.842 \times 0.517 \times 0.483 / 0.0025 = 383.76$

140 **Allowance for 10% Attrition (Non-response) Rate**

141 Formula, $N = n / (1 - NR)$

142 Where, N = new sample size

143 n = old sample size

144 NR = Non-response Rate = $10\% = 0.1$

145 Therefore, N (new sample size) = $383.76 / (1 - 0.1) = 426.39$. Approximately to 426 respondents

Data Collection Procedure: Data collection was carried out daily until the anticipated sample size of 426 respondents was achieved through a semi-structured self-administered questionnaire which comprised of multiple choice, open-ended and Likert-scale questions.

Validation and Reliability: The instrument was carefully structured by the researchers in relevance to the objectives of the study. Content of the tool was compared with the available literatures on the topic. Items in the questionnaire, appropriateness of language and instructions to the respondents were reviewed, corrected, and approved by the ethical committee of the study setting. Instrument was pre-tested among 43 employees from Obstetrics and Gynecology department of the research setting.

Statistical Analysis: Data were analyzed using Statistical Packages for Social Sciences (SPSS) version 15.0. Descriptive statistics were used to summarize data; findings were presented in frequency tables, percentages, and figures. Hypotheses were tested using Chi-Square test. Level of Significance, $P = .05$.

Ethical Considerations: Ethical approval was obtained from the ethical committee of the research setting. Study was carried out in accordance with the ethical standards. Informed consent was obtained from individual respondent before administration of the study instrument. Instrument was pre-coded and the information obtained was kept confidential and used for research purpose only. There was no harm or risk to the participants since the study did not involve any invasive procedure.

3. RESULTS AND DISCUSSIONS

Four hundred and twenty-six questionnaires were taken to the field, 392 were retrieved out of which 350 were fit for analysis. Results were presented in frequency tables, percentages, figures and charts. Research hypotheses were also tested.

Socio-demographic Characteristics of Respondents

Modal age group of respondents was 31-35years, followed by 26-30 years and the least age group was 51 and above. More than half of the respondents were females as compared with their male

170 counterparts. Majority was Christians and larger percentage of the respondents was from Yoruba tribe
171 (Table 1).

172

173 **Table 1: Socio-Demographic Characteristics of the Respondents**

	Socio- Demographic Characteristics	n= 350	(%)
174	Age (Years)		
175	≤ 25 years	41	11.7
176	26-30	84	24.0
177	31-35	91	26.0
178	36-40	49	14.0
179	41-45	39	11.1
180	46-50	37	10.6
181	51 & above	9	2.6
182	Sex		
183	Male	162	46.3
184	Female	188	53.7
185	Marital Status		
186	Single	88	25.1
187	Married	258	73.7
188	Widow	2	0.6

189 Separated 2 0.6

190 **Religion**

191 Islam 73 20.8

192 Christianity 275 78.6

193 Traditional 2 0.6

194 **Ethnicity**

195 Yoruba 318 98.9

196 Igbo 28 8.6

197 Hausa 4 1.2

198 **Respondents' Knowledge about National Health Insurance Scheme**

199 Quite a larger percentage of the respondents were knowledgeable about NHIS as a social insurance to
 200 improve quality healthcare as against few who had contrary opinion. Furthermore, majority of
 201 respondents admitted that NHIS ensures equitable distribution of healthcare costs among different
 202 income groups in Nigeria. Also, more respondents knew that NHIS covers out-patients cares including
 203 consumables, preventive care, consultation with specialist and that employees have the right to change
 204 primary healthcare provider if dissatisfied (Figure 1).

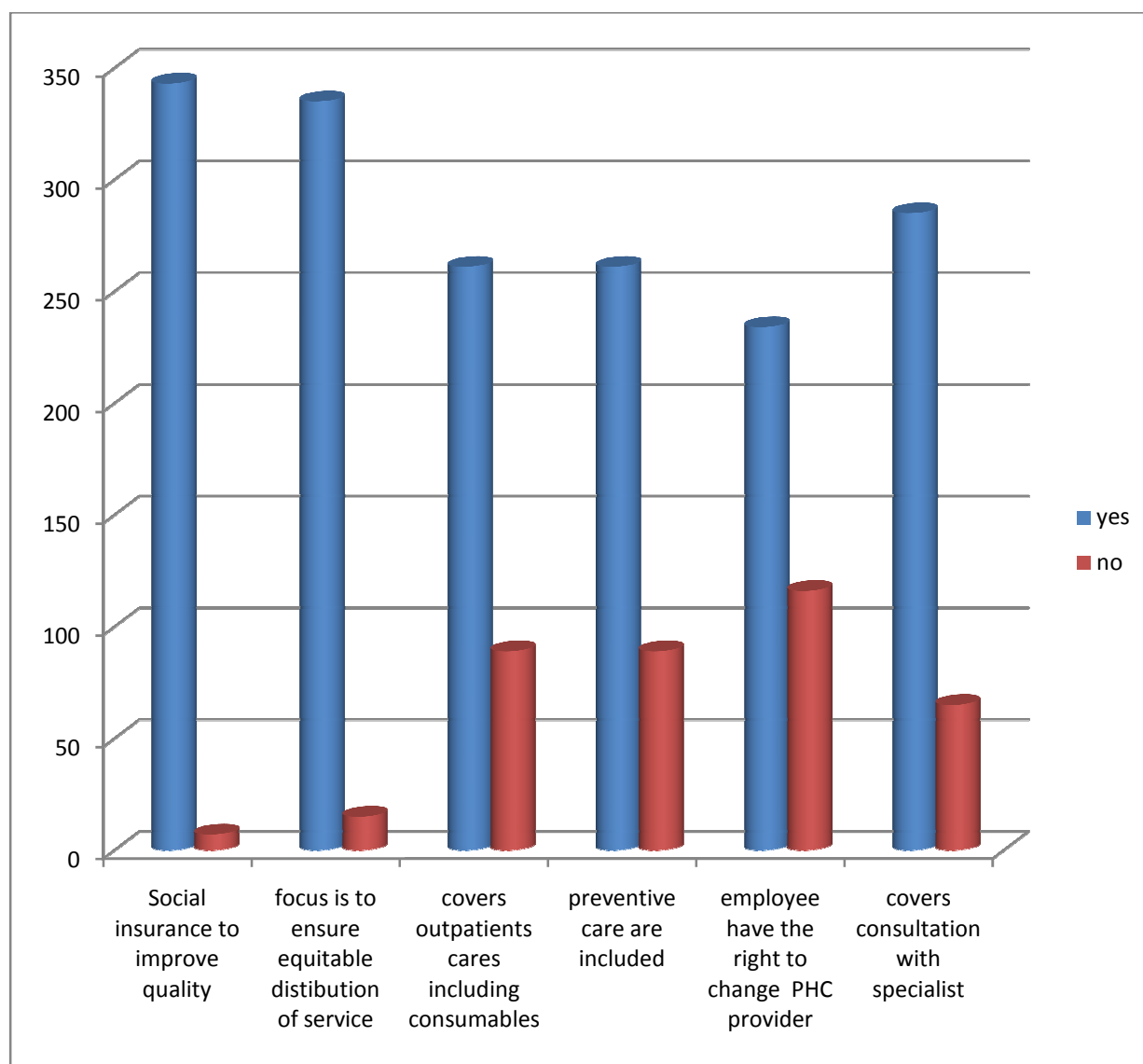
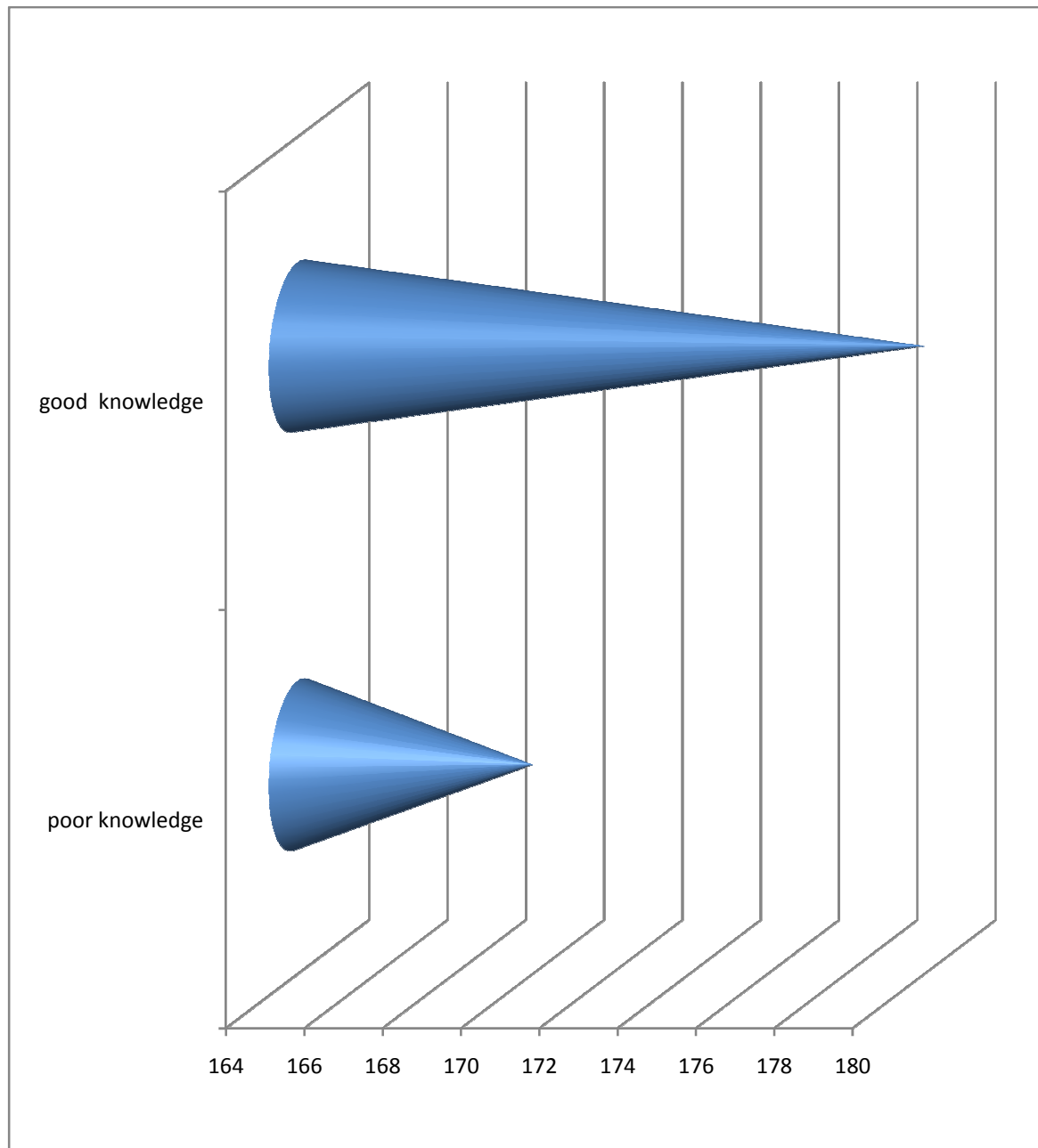


Figure 1: Respondents' knowledge about National Health Insurance Scheme

213 Overall Respondents' Knowledge about NHIS

214 In overall, an average of the respondents had good knowledge about NHIS program (Figure 2).

215



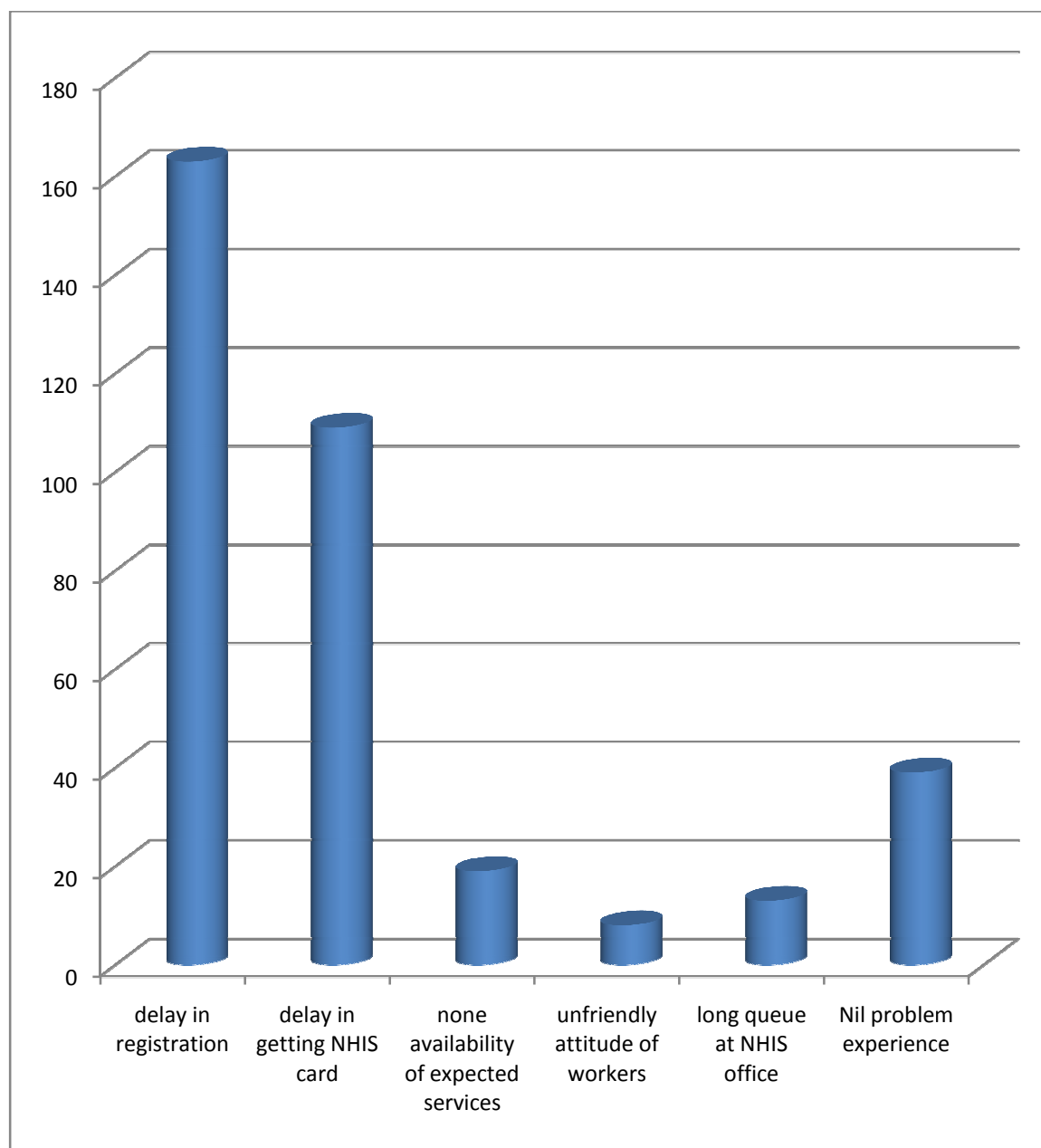
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217 **Figure 2: Respondents' Overall Knowledge about NHIS**

218

219 Problems Encountered by Respondents during NHIS Registration Process

220 Commonest challenges encountered by respondents during registration process in highest ranking order
 221 were delay in registration, delay in getting NHIS card, non-availability of expected services from
 222 healthcare providers, long queue at NHIS offices and unfriendly attitude of workers. However, few
 223 respondents encountered nil problem throughout their registration processes (Figure 3).

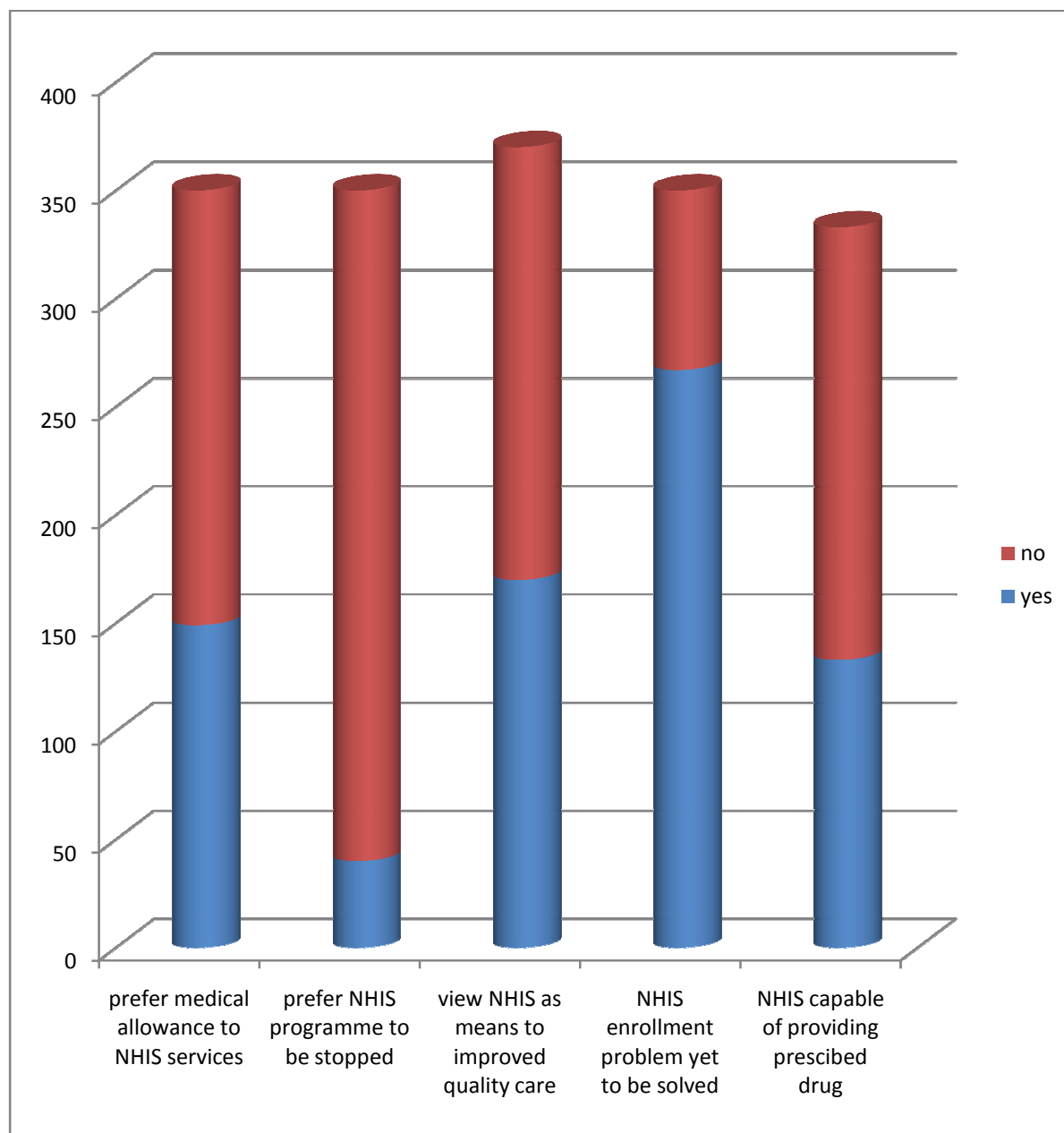


224
 225 **Figure 3: Problems Encountered by Respondents during Registration with NHIS**

226 Perception of Respondents towards NHIS Services

227 Almost half of the respondents perceived NHIS as a means to improve their health, some of them
 228 perceived NHIS as being capable of providing prescribed drugs. However, some preferred medical
 229 allowance to NHIS services. While, few preferred NHIS programme to be stopped (Figure 4).

230



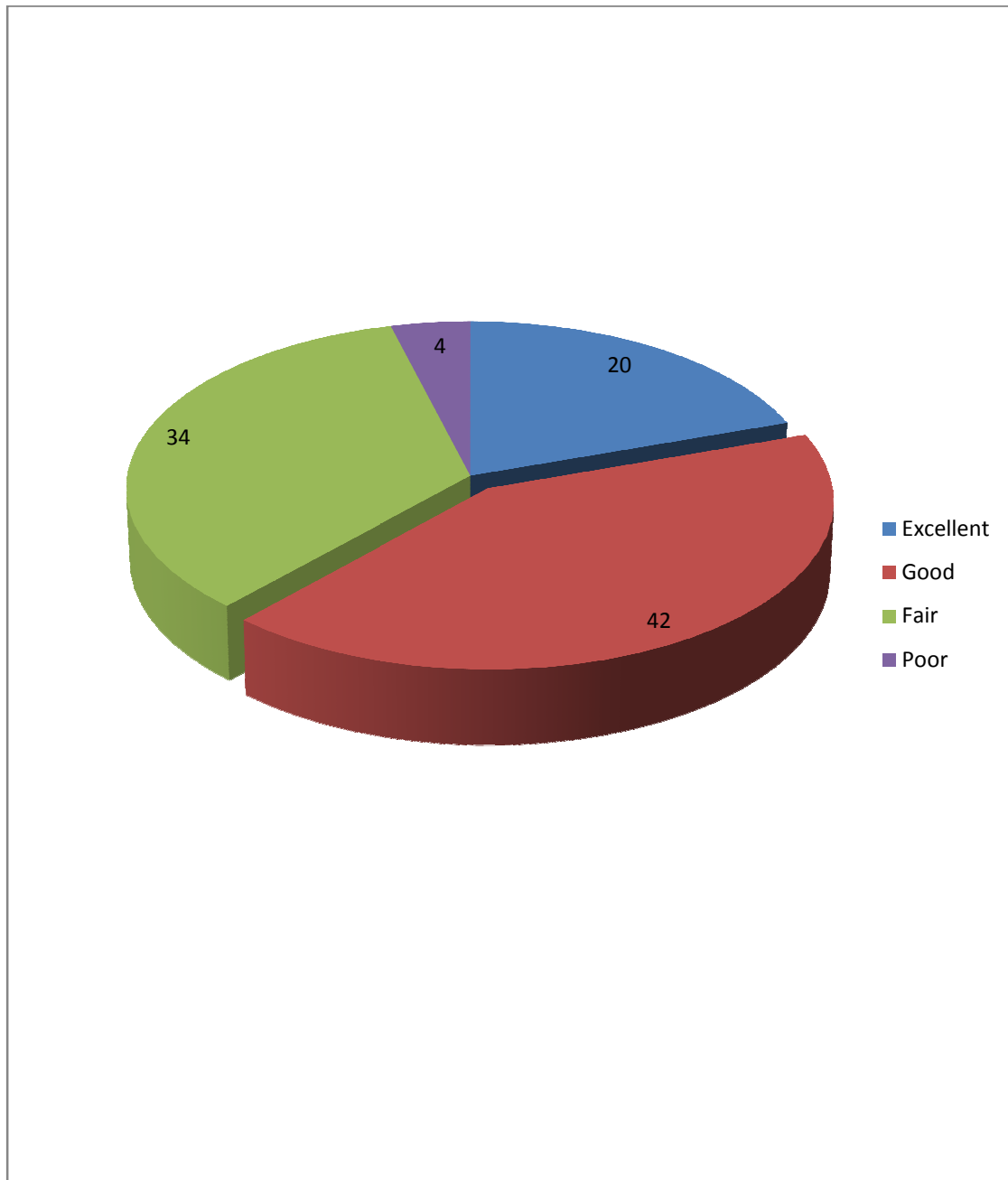
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232 **Figure 4: Perception of Respondents towards NHIS Services**

233 **Overall Perception of NHIS Services by Respondents**

234 Majority of the respondents rated NHIS services as good. However, NHIS services were poor according
 235 to some (Figure 5).

236



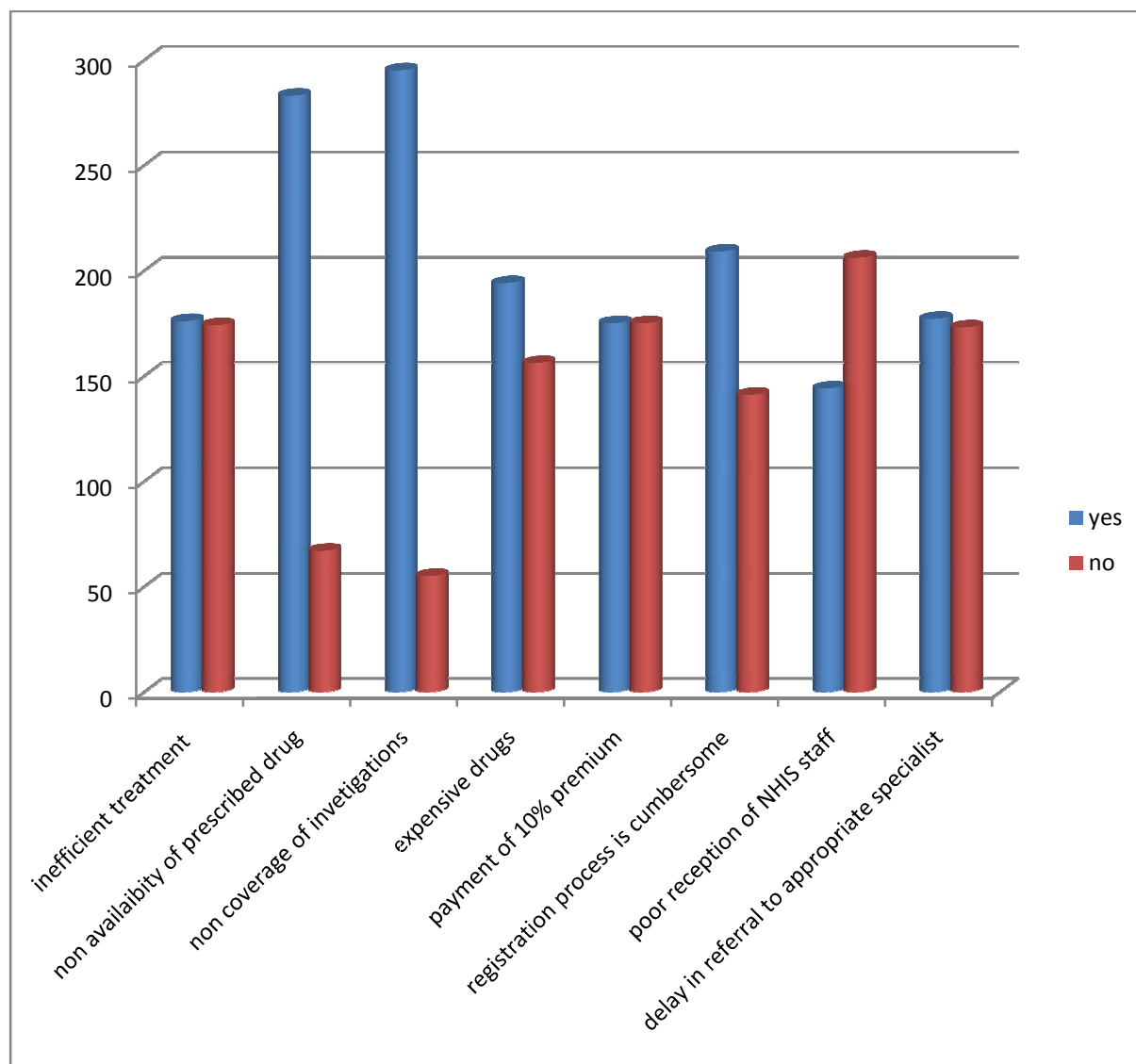
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238 **Figure 5: Overall Perception of NHIS Services by Respondents**

239 Factors Hindering Effective Utilization of NHIS Services among the Respondents

240 Commonest factors hindering effective utilization of NHIS services in highest ranking order included non-
 241 availability of prescribed drugs, non-coverage of some investigations by NHIS, cumbersomeness of NHIS
 242 registration process, expensive drugs, and poor attitude/reception of NHIS staff (6).

243



244

245 **Figure 6: Factors Hindering Effective Utilisation of NHIS Services**

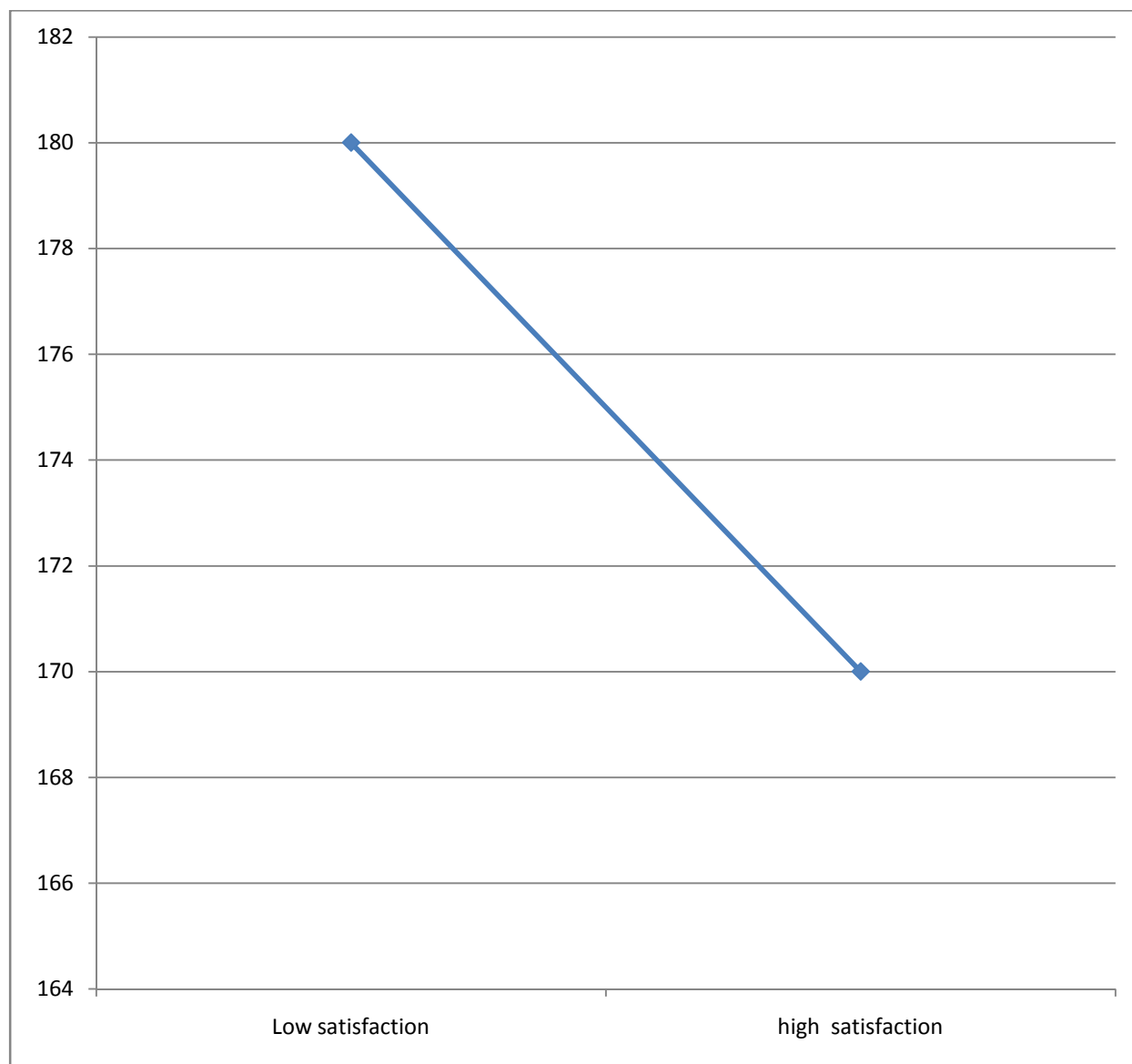
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248 **Respondents' Level of Satisfaction with NHIS Services**

249 Above average 180 (51.4%) of respondents indicated low level satisfaction with NHIS services.

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251

252

253 **Figure 7: Respondents' Level of Satisfaction with NHIS Services**

254

255

256 Hypotheses

257 **H₀1:** There is no significant relationship between respondents' gender and their level of satisfaction with
258 NHIS services.

259 Chi-Square analysis (Table 2) showed that the association between respondent's level of satisfaction with
260 NHIS services and their gender was not significant ($P = .08$, Level of Significance = .05, Chi-Square value
261 = 11.95). Therefore, the null hypothesis was not rejected.

262 **Table 2: Significance of Respondents' Gender to their Satisfaction with NHIS Services**

Respondents' Gender	Level of Satisfaction		χ^2	Df	Level of Significance	P-value
	High Satisfaction	Low Satisfaction				
Male	98	65	11.95	3	0.05	.08
Female	82	105				
Total	180	170				

265 **H₀ 2:** There is no significant relationship between respondents' ethnicity and their perception with NHIS
266 services.

267 Chi-Square analysis (Table 3) showed that the association between respondents' ethnicity and their level
268 of perception with NHIS services was not significant (P -value = .43, Level of Significance = 0.05, df= 3,
269 Chi-Square value = 2.768). Therefore, the null hypothesis was not rejected.

270

271 **Table 3 Significance of Respondents' Ethnicity to their Perception with NHIS Services**

Respondents' Ethnicity	Level of Perception		χ^2	df	Level of Significance	P-value
	Negative	Positive				
Yoruba	131	187	2.768	3	0.05	.43
Igbo	16	12				
Hausa	2	2				
Total	149	201				

272

273

274 **DISCUSSION**

275 **Socio-demographic Characteristics of Respondents**

276 Modal age of respondents was 31-35 year, while the mean age was 34.6 ± 1.7 . This falls within the work-
 277 force years. Majority of respondents were Christians, followed by Islam because these were the two major
 278 religions in the study area. Also respondents were predominantly Yorubas. Study setting was located in
 279 the Yoruba region of the country which were mostly Yorubas. Furthermore, findings revealed that NHIS
 280 programme would be well populated because as majority of respondents were married whose family
 281 members are equally expected to register as well (nuclear family only) with the scheme.

282

Knowledge of Respondents on NHIS Program

Findings revealed that larger percentage of respondents had high knowledge of NHIS as a bid for quality improvement with the aim of improving access to health care and reducing financial burden of out-of-pocket payment for health care services. High knowledge of NHIS by the respondents may be due to the fact that almost half of respondents had tertiary education coupled with their working environment which might make them to be conversant with any National health policy such as NHIS. Finding from this study is in line with that of [9] in a survey on perception of dentists with NHIS in Lagos state which revealed good knowledge of the NHIS. However, this is at variance with the related study by [1] in which small proportion had good knowledge of the NHIS.

Problems Encountered by Respondents during Registration with NHIS

Poor funding of health sector was identified as the major bane of NHIS in Nigeria. [4] The study therefore, observed that adequate funding alone cannot ameliorate the challenges facing NHIS as delay in registration, long-queue at NHIS offices and unfriendly attitude of NHIS staff ranked highest among the challenges experienced by the respondents during registration with NHIS. Hence, government alone should not be expected to provide a fix-all-solution to NHIS problems; instead, NHIS staff should always ensure a friendly and conducive atmosphere in their schedule of assignments. Training and re-training of NHIS staff for capacity building can yield huge success in this regard.

Findings from the study were in tandem with finding of [10] in an assessment of awareness level of NHIS among health care consumers in Oyo State, Nigeria in which majority of respondents claimed that they were not promptly attended to by their providers and hence wanted the programme discontinued. Furthermore, a study by [11], which addressed the issue of access constraints for government employees in Abakaliki, Ebonyi State, found that NHIS enrollees had little difficulty in accessing health care compared with those relying on OOP payments.

Respondents' Perception of NHIS Services

Present study revealed that many respondents perceived NHIS services as good, they might viewed the health insurance as option of quality healthcare provisioning and if well managed its benefits will be

tremendous on the work-force. The study supports the assertion of similar studies where the respondents rated NHIS services as better. [13] However, it is contrary with the findings of [12] which identified ineffectiveness of the scheme.

Factors Hindering Effective Utilization of NHIS Services among Respondents

In this study, factors such as non-availability of prescribed drugs, non-coverage of some investigations, cumbersomeness of registration process and poor reception of NHIS staff were identified by the respondents. Perceived benefits of NHIS services by respondents should outweigh its challenges to prevent under utilization of the scheme which may encourage self-medication among the work-force and limit their access to quality healthcare. Findings from this study were in line with the findings of some similar studies [15,14] where numerous factors hindering effective utilization of NHIS among users were identified which consequently limit their access to quality NHIS services.

Respondents' Satisfaction with NHIS Services

Present study identified low level satisfaction of NHIS services by the respondents. Low satisfaction with NHIS is contrary to the opinion of the government to ensure equitable distribution of health care costs among different income groups. This is similar with the findings of some related studies [16] which documented low satisfaction of respondents with NHIS services. This will have negative impact on the employees as it was simply judged to be ineffective. NHIS could serve as a source of motivation for employees if properly managed. It will also foster availability, affordable of functional healthcare to employees which tends positively affect all the sectors of the economy because good health is an asset and promotes productivity. However, finding of the present study is different from that of some similar studies [13,14] which documented high satisfaction with NHIS services.

Hypotheses of the Study

Chi-Square analysis showed that the association between respondents' level of satisfaction with NHIS services and their gender was not significant. This means that NHIS services are not gender bias, its non-responsiveness to workers was not determined by gender factor. Being a man or woman was not a

determinant of how such would be attended to which indicated that other factors were attributed to the challenges respondents faced with NHIS. In addition, Chi-Square analysis revealed that the association between respondents' ethnicity and their level of perception with NHIS services was not significant. This indicates that the federal character of the study area was highly upheld as the three major tribes were not a major determinant of respondents' perception of NHIS.

4. CONCLUSION

Perception of employees with NHIS services was good; however, the satisfaction was low. This indicates that NHIS is deviating ~~away~~ from the achievement of "Health for All" by the year 2030 as the main goal of the Primary Health Care which is a program of the World Health Organization. Therefore, it is high time the Nigerian government, management of the study setting and other stakeholders of NHIS program revisited ~~ed~~ policies regarding NHIS and ensure provision of quality NHIS services to the employees who are the work-force and economy life-wire of the nation.



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UI/UCH EC Registration Number: **NHREC/05/01/2008a**

NOTICE OF FULL APPROVAL AFTER FULL COMMITTEE REVIEW

Re: Perception and Satisfaction of National Health Insurance Scheme Services among Employees of the University College Hospital, Ibadan, Nigeria

UI/UCH Ethics Committee assigned number: UI/EC/15/0320

Name of Principal Investigator: **Iyabode A. Gbadamosi**
Address of Principal Investigator: School of Nursing,
Babcock University,
Ilishan-Remo, Ogun State

Date of receipt of valid application: 17/09/2015

Date of meeting when final determination on ethical approval was made: **12/11/2015**

This is to inform you that the research described in the submitted protocol, the consent forms, and other participant information materials have been reviewed and *given full approval by the UI/UCH Ethics Committee.*

This approval dates from **12/11/2015 to 11/11/2016**. If there is delay in starting the research, please inform the UI/UCH Ethics Committee so that the dates of approval can be adjusted accordingly. Note that no participant accrual or activity related to this research may be conducted outside of these dates. *All informed consent forms used in this study must carry the UI/UCH EC assigned number and duration of UI/UCH EC approval of the study.* It is expected that you submit your annual report as well as an annual request for the project renewal to the UI/UCH EC early in order to obtain renewal of your approval to avoid disruption of your research.

The National Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the Code including ensuring that all adverse events are reported promptly to the UI/UCH EC. No changes are permitted in the research without prior approval by the UI/UCH EC except in circumstances outlined in the Code. The UI/UCH EC reserves the right to conduct compliance visit to your research site without previous notification.



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Research Units • Genetics & Bioethics • Malaria • Environmental Sciences • Epidemiology Research & Service
• Behavioural & Social Sciences • Pharmaceutical Sciences • Cancer Research & Services • HIV/AIDS

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ABBREVIATIONS

- HMO: Health Maintenance Organization
- NHIS: National Health Insurance Scheme
- OOP: Out-of -Pocket
- PIN: Personal Identification Number
- UCH: University College Hospital
- WHO: World Health Organization