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Healthcare Professional's Conflict Management Styles and Perceived Team Effectiveness and Cohesiveness in South-west, Nigeria

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Abstract

Background: This study assessed healthcare professionals' preferred conflict management styles and their association with their perceived team effectiveness and cohesiveness.

Method: A cross-sectional study was conducted at a tertiary health facility, South-west, Nigeria among 300 healthcare professionals selected via a multi-stage sampling technique. The adapted Thomas-Kilmann conflict mode instrument was self-administered to assess respondents' conflict management styles and based on their highest scores, were categorised into negative (accommodating, avoiding, competitive) and positive (collaborative, compromising) styles. Their perceived team effectiveness and team cohesiveness were assessed using pre-tested self-developed tools with >0.8 Cronbach's alpha. Factors associated with their preferred conflict management style, their perceived team effectiveness and cohesion were determined at a 5% level of significance.

Result: The majority of 240 (80.0%) of the healthcare professionals adopted negative conflict management styles. A higher proportion of them perceived their teams as cohesive 188(67.9%), and effective 173(62.5%). Being a male (p=0.018), single (p=0.017), with <7 years of work experience post-graduation (p=0.024) and <6 years of experience working in teams (p=0.044) were significantly associated with a preference for positive conflict management styles. Health professionals with <6 years of teamwork experience and occasional or rare occurrences of personal conflicts with teammates had significantly higher perceived team cohesiveness and effectiveness scores. However, their preferred conflict management style was not significantly associated with their perceived team cohesiveness or effectiveness.

Conclusion: The healthcare professionals assessed commonly adopt negative conflict management styles but with no effect on their perceived team cohesiveness and effectiveness. Direct assessment of their team effectiveness and cohesiveness is advised.

Keywords: Conflict, healthcare professionals, conflict management styles, team effectiveness, team cohesion, teamwork.

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Introduction

The provision and delivery of health goods and services are heterogeneous as they require contributions from diverse healthcare professionals to achieve effective delivery of optimum care.[1] A single professional type cannot sufficiently meet the health care needs of the clients in the health system,[2] hence the need for collaborative practice and teamwork in the health sector. A sequel to this is the inevitable occurrence of conflict situations among these health professionals working together as teams.[3] Teams have been described as a collection of individuals who are dependent on one another in the accomplishment of tasks and share responsibilities for the outcomes.[4] Health teams may consist of doctors, pharmacists, nurses, laboratory scientists including other categories of health professionals in varying proportions. All are expected to work together to accomplish a shared objective which includes the delivery of quality, safe, and timely healthcare services.

Effectiveness and cohesiveness are expected outcomes of good teams. Effectiveness is "*the extent to which planned outcomes, goals, or objectives are achieved as a result of an activity, strategy, intervention or initiative intended to achieve the desired effect, all things being equal*".[5] Effective teams have a clear unity of purpose. Every member of the team understands its purpose and operations and is free to express their ideas and opinions to aid joint decision-making. Cohesiveness is defined as *"the forces acting on members to remain in the group"*.[6] These forces will depend on the unique characteristics of the team. These characteristics may include the purpose, membership, and team activities. These characteristics may be attractive or unattractive to members of a team and keep them in a team or otherwise. A team's strength is found in the relationships and cohesiveness among its team members.[7] A low level of familiarity amongst team members may result in lower levels of productivity and decreased effectiveness in their decision-making process.[4,8] Also, team cohesiveness may increase when team goals are met and they receive positive feedback on performance.[9] However, when inter-professional conflicts occur and are not managed effectively, the healthcare goal to provide adequate care to patients may not be met.

Conflict has negative effects on patient care, provider job satisfaction, and productivity.[10] It has been documented that a significant relationship exists between conflicts and the occurrence of medical errors and adverse patient outcomes.[11] Conflict heightens tension in the work environment. Persistent conflict may lead to lesser coordination and reduced efficiency.[12] In healthcare organisations, conflicts could lead to dire consequences. In the Nigerian health system, inter-professional conflicts are said to be very intense, deep-rooted, and crippling.[13] Although the detrimental effects of conflicts are more popular, the positive effects of conflicts also exist. If conflict situations are properly managed, they will result in better understanding among teams and inter-professional groups, resulting in effective teams, and this will nurture the growth of the organisation with improved and excellent working relationships.[14] Hence, the effectiveness of individual employees, their teams, and the entire organisation depends on how they can manage interpersonal conflicts at work.[15] Effective conflict resolution could make all the difference between positive and negative work outcomes.

Conflict management styles are described based on how a person typically responds to interpersonal conflict situations.[16] There are five conflict management styles as defined by Thomas Kilmann.[17] These are competing, avoiding, accommodating, compromising, and collaborating. The competing style (forcing) is being assertive and uncooperative. Here, the individual pursues personal concerns which may be at the expense of others thus applying the "I win- you lose" posture. The avoiding style (withdrawal) is being unassertive and uncooperative. Here, the individual chooses to ignore the conflict situation and as such, overlooks both the personal concerns and the concerns of others. Collaborating is a problem-solving style and the opposite expression of the avoiding style. It is an assertive but cooperative style. Here, the individual attempts to find an amenable solution to the conflict situation that is acceptable to all. While in compromising, also known as sharing, the individual attempts to address the conflict issues directly, though not fully. It is an intermediate assertive, and cooperative style. In the accommodating (smoothing) style, the individual neglects personal concerns for the concerns of others leading to an "I lose- you win" solution.[17]

The preferred approach with which conflict is managed depends on the conflicting parties involved. In Nigeria, several studies have been conducted on the causes of conflicts in the health sector.[18,19] and especially in doctor-nurse relationships.[20] However, there is a paucity of empirical studies relating their conflict management styles to the performance of their health teams. This study was aimed at identifying the healthcare professionals' commonly adopted conflict management style and the influencing factors. The effect of their conflict management style on their perceived team effectiveness and team cohesion was also assessed.

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Method

Study design, setting, population and study size

A descriptive cross-sectional study was conducted at a tertiary health facility, in South-west Nigeria in September 2019. The study population were health professionals comprising doctors (across 13 departments), nurses, pharmacists, laboratory scientists, physiotherapists and radiographers which totalled 2,868 across its 18 clinical departments according to the staff establishment unit at the time of conducting the study. A sample size of 320 was determined using the formula for a single proportion with 70.5% of healthcare workers who acknowledged the existence of conflicts in their work environment,[20] and a 5% degree of precision. Adjustment was made for a finite population of <10,000 and a 10% non-response rate. Proportionate sampling to size was done to determine the number of persons to be surveyed per department. Two-stage simple random sampling (by balloting) was done with the list of members per department as the sample frame. If any were not available or declined, they were replaced. For this study, the immediate group of people who work most closely with the respondents to achieve a defined work goal was defined as their teammates. Data collection was quantitative.

Study instruments, variables, and measurements

A self-administered pretested, adapted questionnaire from the Thomas-Kilmann Conflict Mode Instrument (TKI) was used.[17] The TKI is a forced-choice instrument that comprises 30-item scenarios, each with two options (A or B) describing how best the respondent would respond in conflict situations. The respondent is expected to select one of the two options. Altogether, there are 60 options, scoring one mark each, describing the five conflict management styles being assessed. Each of the styles has a maximum score of 12. A score ≥6 for a style indicates a preference for that style. The five conflict management styles were further categorised into positive styles (collaboration and compromise) and negative styles (avoidance, competing, and accommodating). The respondents' perceived team cohesion and team effectiveness were assessed using a self-developed pre-tested 8-item tool for each on a 5-point Likert scale of agreement. The reliability test done gave an alpha of 0.848 for the tool assessing their perceived team cohesion and 0.805 for the tool assessing their perceived team effectiveness. The maximum obtainable score from the tools was 40. The higher the score the more their perceived team cohesion and team effectiveness. A score of ≥28.0 which is ≥70% of the total obtainable was interpreted as respondents' having a high perception of their team's level of cohesiveness and effectiveness. The outcome variables were the score of their perceived team cohesiveness and team effectiveness while the conflict management style was the critical explanatory variable in this study.

Statistical analysis

Data collected were analysed using the Stata version 17 and presented in frequency distribution tables. Summarisation of data into mean and standard deviation was done. The association between the respondent's socio-demographic profile and their conflict management styles were assessed using the chi-square statistical test. Simple and multiple linear regression analysis was used to identify the predictors of their perceived team effectiveness and team cohesion with the level of statistical significance set at p<5%. Variables with a significance level of p<0.2 in the simple logistic regression analysis were included in the multiple logistic regression model simultaneously.

Ethical and confidentiality

Written informed consent was obtained from the respondents after assuring them of the confidentiality of the information provided. Ethical approval was obtained from the Health Research and Ethics Committee of the Obafemi Awolowo University Teaching Hospital Complex, Ile-Ife with ethical number ERC/2017/07/14.

Results

Socio-demographic characteristics: Three hundred (300) health professionals completed the survey giving a 92% response rate. Respondents' mean age was 34.0 ± 7.1 years with a minimum and maximum age of 22 and 59 years respectively. Majority of the respondents were young adults, 269 (89.7%). There were a higher proportion of males 159 (53%) with about two-thirds 199 (66.3%) being married. Only 32 (10.7%) of the respondents had obtained at least an additional qualification beyond their first degree. More than 60% of the respondents were in either the medical or nursing profession and most 198 (66%) had <7 years of work experience post-graduation. See Table 1.

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Table 1: Socio-demographic profile of healthcare professionals

Variables	Frequency (n)	Percent
Age in years		
Young adults (< 44 years)	269	89.7
Middle age (≥ 44 years)	31	10.3
Mean age ± SD	34.03 ± 7.1 (95% CI: 33.2 - 34.8)	
Gender		
Male	159	53.0
Female	141	47.0
Educational status		
First degree	268	89.3
Second degree	32	10.7
Marital status		
Married	199	66.3
Single	101	33.7
Religion		
Christianity	262	87.3
Islam	38	12.7
Ethnicity		
Yoruba	227	75.7
Igbo	44	14.7
Hausa	11	3.7
Others	18	6.0
Professional type		
Medical doctor	125	41.7
Nursing	107	35.7
Pharmacists	15	5.0
Others	53	17.6
Years of experience		
1 - 6	198	66
≥ 7years	102	34
Mean years of experience ± SD	6.21 ±5.9 (95%CI: 5.5 – 6.9)	

Involvement of respondents in teams and occurrence of conflicts in teams

In Table 2, almost all the respondents, 277 (92.3%) agreed to being in a team and the majority of them, 233 (84%) considered those outside their health disciplines but who work closely together with them as part of their team. Their mean years of experience working in teams was 5.8 ± 5.5 S.D. About 88.3% of the respondents concurred that goals were always or occasionally shared among their health teams while 269 (97.1%) reported that members of their teams understood their boundaries. Conflict occurrence amongst teammates was reported by 233 (80.0%) of the respondents, and if a conflict occurs at all, 153 (55.2%) alluded to its occasional occurrence. About three-quarters 206 (74.3%) of them agreed to have engaged in a conflict situation with at least a member of their health team with only 90 (32.5%) describing this as a rare occurrence. More than 60% of the respondents perceived their teams as cohesive and effective.

Table 2: Respondents' team dynamics, perceived cohesiveness and effectiveness

Variable	Frequency (n)	Percent (%)
Agreed to being part of a team (N=300)		
Yes	277	92.3
No	23	7.7
Years of experience working with team(s)		
<6 years	180	64.8
≥ 6 years	98	35.2
Mean years of experience working with teams ± SD	5.8 ± 5.5 (95%CI: 5.2 - 6.4)	
Considers others not in same discipline as teammates (n=277)		
Yes	233	84.1
No	44	15.9
Goals' division among teams (n=277)		
Always/ frequent	123	44.3
Occasionally/Sometimes	122	44.0
Rarely/Never	32	11.7
Understand each other's boundaries (n=277)		
Yes	269	97.1

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Variable	Frequency (n)	Percent (%)
No	8	2.89
Perceived occurrence of conflict among team members (n=277)		
Yes	223	80.5
No/Not sure	54	19.5
Frequency of conflict among members		
Always/ frequent	80	28.9
Occasionally/Sometimes	153	55.2
Rarely/ Never	44	15.9
Ever engaged in conflict with members		
Yes	206	74.3
No/ Not sure	71	25.6
Frequency of engaging in conflict with members		
Always/ frequent	46	16.6
Occasionally/Sometimes	141	50.9
Rarely/ Never	90	32.5
Usual feeling after the occurrence of conflict		
Unpleasant	132	47.6
Disturbed/confused	53	19.1
Afraid/restless	16	5.8
Nothing unusual	72	25.9
Happy/elated	4	1.44
Perceived team cohesiveness		
Cohesive	188	67.9
Not cohesive	89	32.1
Mean perceived team cohesion score ± SD	29.3 ± 5.8 (95%CI: 28.6 – 30.0)	
Perceived team effectiveness		
Effective	173	62.5
Not effective	104	37.5
Mean perceived team effectiveness score ± SD	28.6 ± 5.1 (95%CI: 28.3 – 29.5)	

SD- Standard deviation, CI- Confidence Interval

Conflict management styles and perceived factors influencing their preferred styles

Avoiding 144 (48.0%) was the most adopted conflict management style by the health professionals studied, followed by accommodating 67 (22.3%). The least was collaborating 18 (6.0%) as shown in Figure 1. When the five conflict management styles were re-categorised, the majority of the respondents 240 (80.0%) adopted the negative conflict management style.

Figure 2 shows the respondents' perceived influencing factors that explain their preferred conflict management style. Their personality 192 (64.0%) ranked the highest, followed by their set standards 161 (53.7%) and religious belief 155 (51.7%). The factor they least believed influenced their preferred conflict management style was their ethnicity 59 (19.7%).

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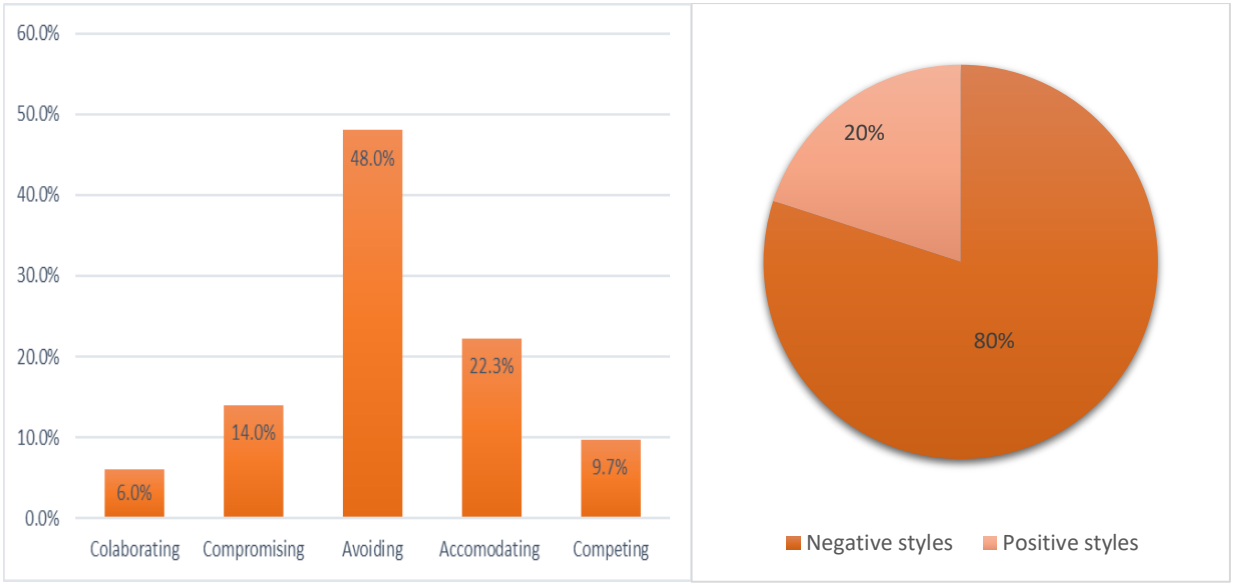

Figure 1: Health professionals commonly adopted conflict management styles

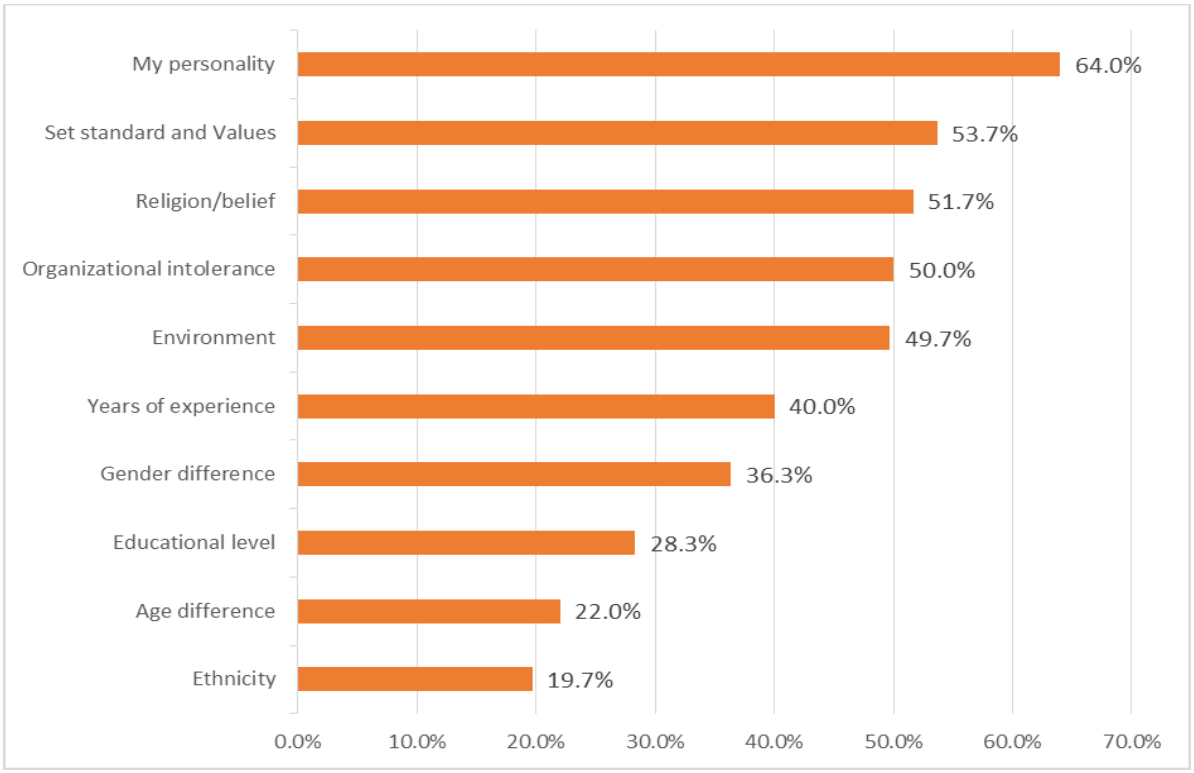

Figure 2: Health professionals perceived influencing factors of their commonly adopted conflict management styles

Factors associated with respondents' preferred conflict management styles, perceived team cohesion and effectiveness

In Table 3, the factors associated with the respondents' preference for positive (compromising and collaborating) or negative (avoiding, competing and

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accommodating) conflict management styles were assessed. Being a male (p=0.018) and being single (p=0.017) were significantly associated with a preference for a positive conflict management style. Also, a significantly higher proportion of respondents with <7 years of work experience post-graduation (p=0.024) and those with <6 years of experience working in teams (p=0.044) preferred adopting the positive conflict management styles.

The factors associated with the health professionals' perceived team cohesion and team effectiveness are presented in Tables 4 and 5 respectively. The preferred conflict management styles for the 277 respondents in teams did not significantly influence how they perceived their team's degree of cohesion or its effectiveness.

Table 3: Socio-demographic profile and conflict management styles (n=300)

Variable	Conflict Management Styles		Chi-square test	p-value
	Positive	Negative		
Age group				
< 44	57 (21.2)	212 (78.8)	2.302	0.129
≥ 44	3 (9.7)	28 (90.3)		
Gender				
Male	40 (25.2)	119 (74.8)	5.624	0.018
Female	20 (14.2)	121 (85.8)		
Educational level				
First degree	52 (19.4)	216 (80.6)	0.560	0.454
Second degree	8 (25.0)	24 (75.0)		
Marital Status				
Married	32 (16.1)	167 (83.9)	5.676	0.017
Single	28 (27.7)	73 (72.3)		
Religion				
Christianity	52 (19.8)	210 (80.2)	1.932	0.748
Islam	8 (21.1)	30 (7.9)		
Professional Type				
Medical	22 (22.2)	77 (77.8)		
Nursing	15 (14.0)	92 (86.0)	6.562	0.087
Pharmacists	6 (40.0)	9 (60.0)		
Others	17 (21.5)	62 (78.5)		
Years of work experience				
1 – 6	47 (23.7)	151 (76.3)	5.084	0.024
≥ 7	13 (12.8)	89 (87.3)		
Years of experience working with team(s)				
<6 years	42 (23.3)	138 (76.7)	4.053	0.044
≥ 6 years	13 (13.3)	85 (86.7)		

** Figures in bold are statistically significant*

In Table 4, only the respondents' age was persistently significantly associated with their perceived team cohesion in both the simple and multiple linear regression analysis. For every unit increase in age in years, their perceived team cohesion scores increased by 0.2 units (β=0.2; 95%CI: 0.1- 0.3; p-value: <0.001). The perceived team cohesion score for respondents with at least a second degree was significantly 2.8 units lower than for those with only one degree at the time of conducting the study, (p=0.041). Respondents of Yoruba (β=3.4; 95%CI: 0.9-6.0; p-value: 0.009) and Igbo (β=3.1; 95%CI: 0.2 – 6.1; p-value: 0.034) ethnicity had significantly higher perceived team cohesion scores than those of Hausa and other ethnic groups in Nigeria. The perceived team cohesion score for the respondents with <6 years of teamwork experience was significantly 2.3 times higher than for those with ≥6 years of teamwork experience (p=0.003), after controlling for confounders. Health professionals who reported occasional (β=3.0; 95%CI: 1.4-4.6; p-value: <0.001) or rare (β=3.9; 95%CI: 1.6–6.2; p-value: <0.001) occurrence of conflict among their teams had significantly higher perceived team cohesion scores than those who reported more frequent occurrence of conflict. So also, respondents who occasionally (p=0.009) or rarely (p<0.001) engaged in conflict situations with their team members also had

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significantly higher perceived team cohesion scores at both the simple and multiple linear regression analysis. See Table 4.

Table 4: Factors associated with health professionals' perceived team cohesion

Covariates	Crude Coeff.	95% CI	P-value	Adj. Coeff.	95% CI	P-value
Conflict management styles						
Avoiding	Ref	-	-			
Competing	-1.8	-4.4 – 0.7	0.154			
Accommodating	0.0	-1.7 – 1.7	0.221			
Compromise	-0.6	-2.7 – 1.4	0.196			
Collaborating	0.4	-2.6 – 3.4	0.120			
Conflict management styles re-categorised						
*Positive	-0.1	-1.8 – 1.6	0.874	0.7	-0.9 – 2.2	0.382
*Negative	Ref	-	-	Ref	-	-
Age (in years)	0.1	0.0 – 0.2	0.003	0.2	0.1 -0.3	< 0.001
Sex						
Male	Ref	-	-	Ref	-	-
Female	1.1	-2.5 – 0.2	0.107	-1.4	-2.8 – 0.0	0.056
Educational status						
Completed first degree	Ref	-	-	Ref	-	-
Completed second degree	-1.1	-3.2 – 1.1	0.322	-2.8	-4.9 – -0.7	0.008
Marital status						
Married	Ref	-	-	Ref	-	-
Single	-1.1	-2.5 – 0.4	0.145	-0.7	-2.3 – 0.8	0.332
Ethnicity						
Yoruba	1.6	-1.2 – 4.5	0.268	3.4	0.9 – 6.0	0.009
Igbo	1.8	-1.5 – 5.1	0.279	3.1	0.2 – 6.1	0.034
Hausa	-0.2	-4.6 – 4.2	0.933	2.5	-1.5 – 6.5	0.216
Others	Ref	-	-	Ref	-	-
Professional Type						
Medical Doctor	0.7	-1.1 - 2.5	0.463	0.2	-1.5 – 1.9	0.811
Nursing	0.3	-1.5 – 2.1	0.738	1.3	-0.5 – 3.0	0.148
Pharmacists	0.5	-2.7 – 3.8	0.743	0.8	-2.1 – 3.7	0.582
Others	Ref	-	-	-	-	-
Years of experience working with team(s)						
<6 years	1.0	-0.4- 2.5	0.152	2.3	0.8 – 3.9	0.003
≥ 6 years	Ref	-	-	Ref	-	-
Frequency of conflict occurrence among teams						
Always/ frequently	Ref			Ref		
Occasionally	4.0	2.6 – 5.5	<0.001	3.0	1.4 – 4.6	<0.001
Rarely/ Never	6.5	4.5 – 8.4	<0.001	3.9	1.6 – 6.2	<0.001
Frequency of engaging in conflict with teammate(s)						
Always/ frequently	Ref			Ref	-	-
Occasionally	4.4	2.6 – 6.2	<0.001	2.6	0.6 – 4.5	0.009
Rarely/ Never	6.4	4.5 – 8.4	<0.001	4.1	2.0 – 6.2	<0.001
Constant				10.4	4.3 – 16.6	0.001
				n=277; R^2=0.241; p < 0.001		

** Note: The positive styles include compromising and collaborating, while the negative styles are avoiding, competing and accommodating. The 5-category conflict management styles were excluded from the final model because of collinearity*

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In Table 5, a unit increase in the respondents' age in years would lead to 0.2 units increase in their perceived team effectiveness scores and this was significant, (p<0.001). Also, respondents with <6 years of teamwork experience significantly had 1.8 units higher perceived team effectiveness scores compared to those with ≥6 years of teamwork experience, (p=0.016). The occurrence of conflict among teammates was not significantly associated with the respondents' perceived team effectiveness. However, respondents who reported that they rarely engage in conflict situations with their teammates had 2.4 units higher perceived team effectiveness scores than those who occasionally or more frequently engage in conflict situations with their teammates, (p=0.022).

Table 5: Factors associated with health professionals' perceived team effectiveness

Covariates	Crude Coeff.	95% CI	P-value	Adj. Coeff.	95% CI	P-value
Conflict management styles						
Avoiding	Ref	-	-			
Competing	-0.0	-2.3 – 2.2	0.978			
Accommodating	0.7	-0.8 – 2.2	0.378			
Compromise	-0.5	-2.3 – 1.3	0.572			
Collaborating	0.8	-1.8 – 3.5	0.535			
Conflict management styles re-categorised						
*Positive	-0.3	-1.8 – 1.2	0.677	-0.0	-1.5 – 1.4	0.959
*Negative	Ref	-	-	Ref	-	-
Age (in years)	0.2	0.1 – 0.2	<0.001	0.2	0.1 -0.3	< 0.001
Sex						
Male	Ref	-	-	Ref	-	-
Female	0.1	-1.3 – 1.1	0.845	-0.4	-1.8 – 0.9	0.514
Educational status						
Completed first degree	Ref	-	-	Ref	-	-
Completed second degree	-0.2	-2.0 – 1.7	0.871	-2.0	-4.0 – 0.0	0.050
Marital status						
Married	Ref	-	-	Ref	-	-
Single	0.0	-1.3 – 1.3	0.980	1.2	-0.2 – 2.6	0.103
Ethnicity						
Yoruba	1.1	-1.4 – 3.6	0.390	2.2	-0.3 – 4.6	0.080
Igbo	1.0	-1.8 – 3.9	0.474	1.6	-1.1 – 4.4	0.238
Hausa	-0.2	-4.1 – 3.6	0.900	0.7	-3.1 – 4.5	0.710
Others	Ref	-	-	Ref	-	-
Professional Type						
Medical Doctor	0.9	-2.5 - 0.6	0.240	-1.1	-2.7 – 0.5	0.180
Nursing	0.3	-1.8 – 1.3	0.727	0.1	-1.6 – 1.7	0.947
Pharmacists	1.0	-1.8 – 3.9	0.468	1.4	-1.4 – 4.2	0.328
Others	Ref	-	-	-	-	-
Years of experience working with team(s)						
<6 years	0.4	-0.9 – 1.6	0.538	1.8	0.3 - 3.3	0.016
≥ 6 years	Ref			Ref		
Frequency of conflict occurrence among teams						
Always/ frequently	Ref	-	-	Ref	-	-
Occasionally	1.3	-0.1 – 2.6	0.065	0.9	-0.6 – 2.4	0.222
Rarely/ Never	3.7	1.8 – 5.5	<0.001	1.5	-0.6 – 3.7	0.165
Frequency of engaging in conflict with teammate(s)						
Always/ frequently	Ref	-	-	Ref	-	-

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Occasionally	1.2	-0.4 – 2.8	0.152	0.5	-1.3 – 2.3	0.594
Rarely/ Never	3.6	1.8 – 5.3	<0.001	2.4	0.3 – 4.4	0.022
Constant				15.9	10.6 – 21.2	<0.001
				n=277; R^2=0.1213; p < 0.001		

** Note: The positive styles include compromising and collaborating, while the negative styles are avoiding, competing and accommodating. The 5-category conflict management styles were excluded in the final model because of collinearity*

Discussion

The occurrence of conflict among healthcare professional teams, their preferred conflict management style and how these are associated with their perceived team cohesiveness and effectiveness were assessed in this study. The respondents alluded to the occasional occurrence of conflict within their teams to which they most commonly adopt the negative conflict management styles. Nonetheless, the health professionals studied perceived their teams as cohesive and effective regardless of their preferred conflict management styles. Respondents with <6 years of teamwork experience and those who reported occasional or rare occurrences of conflict with their teammates had significantly higher perceived team cohesiveness and team effectiveness scores.

Conflicts are inevitable among teams, and it provides a way of understanding and maximising team-based differences. This study revealed that conflict was not a common occurrence among the health professional teams studied but occurred occasionally. This finding is similar to the prevalence of conflict occurrence found in a study conducted in the same study setting four years before our study, with 93 (62.0%) of the respondents reporting occasional occurrences of conflict in the workplace. However, the findings from this prior study were regardless of their team memberhip.[21]

The most frequently adopted conflict management style by the healthcare professionals studied was "avoiding". This was followed by accommodating and competing- which all culminated in the negative conflict management styles. When conflict situations are always ignored and the causes are not resolved appropriately, it could give room for more occurrence of conflicts. Negative conflict management styles such as competing and accommodating could result in dissatisfied team members who have had to accept their losses from conflict situations over time. Furthermore, future inter-professional relationships and attainment of team or organisational goals may be negatively impacted. Conflict management scholars have consistently identified competing/dominating, accommodating, and avoiding as less effective styles and collaboration and compromising as more effective styles for managing interpersonal conflicts.[22,23]

Evidence from the literature on the most prevalent conflict management styles varies. A few reported more of the negative styles,[24–26] while some others ranked accommodating and compromising as the most adopted conflict management style.[27,28] The reasons for the variations in these studies may be attributable to the differences in methodology, study population, culture, values, religion, and work environment peculiar to the respondents.

The health professional's personality ranked highest as the perceived factor influencing their preferred conflict management styles. Their personality could be interpreted as their emotional stability, self-esteem, locus of control, and self-efficacy. Personality types according to the five-factor model of personality by Costa and McCrae include Openness to Experience (imaginative and open-minded), Conscientiousness (careful, organised, and achievement-driven), Extraversion (sociable and assertive), Agreeableness (courteous, flexible, and tolerant) and Neuroticism (anxious and insecure).[29] A meta-analysis of 20 eligible studies and 5,337 participants found agreeableness to be positively associated with all the conflict management styles except the competing style. Neuroticism was positively associated with avoiding but negatively associated with the collaborating style. While extroversion, openness to experience and conscientiousness were positively associated with both the compromising and collaborating styles.[30] However, our study did not explore the respondents' personality types and their association with their commonly adopted conflict management style in the study setting.

We further explored the factors that were statistically significantly associated with the respondent's preferred conflict management styles. The male health professionals significantly adopted the positive conflict management styles. This finding is similar to a study among health

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professionals in a primary health care setting which reported a significant association between gender and conflict management styles.[31] A higher proportion of the male nurses in that study adopted more of the positive conflict management styles (compromising and collaborating) compared to a higher proportion of female nurses who adopted avoiding and accommodating.[31] Male nurses working in critical care units across four Iranian teaching hospitals adopted more of the compromising style compared to female nurses.[32] However, in an academic environment, male and female academicians were found to adopt different conflict management styles, the males adopted more of the negative styles compared to women who adopted the more positive styles.[33] These findings may suggest a gender perspective to conflict resolution styles.

Our findings also showed that married health professionals adopted more of the negative conflict management style compared to the unmarried. This is however in contrast to the findings among single and married individuals selected from a general community in Pakistan.[34] They found that married individuals adopted more adaptive and healthy styles compared to the unmarried.[34] A systematic review of the differences in conflict resolution styles by gender and in different roles showed that women were more collaborative in the home environment compared to more competitive men. However, in the workplace, both men and women were both dominating (competing) as managers but accommodating as subordinates.[35] Thus both men and women adopted the negative conflict management styles in the workplace, which differed in the home environment. This implies that the who, where and what is at stake may largely determine the preferred conflict management style adopted.

We also found that the longer the years of work experience and experience working with teams, the more the tendency to adopt a negative conflict management style. This could suggest a resignation to fate or a lack of zeal to fight for what is right in the workplace. This attitude may negatively impact the effectiveness of teams dominated by this category of health professionals. However, older nurse managers with ≥20 years of work experience adopted more of the accommodating styles while those with 6-10 years of work experience preferred the avoiding style. This shows that irrespective of their work experience, the nurse managers studied adopted negative conflict management styles.[36] There may be an interaction between the age and years of work experience explaining the difference in the findings of this study compared to our study.

More than half of the healthcare professionals we studied perceived their teams as cohesive and effective. This is encouraging as it suggests that the respondents have a positive outlook on their teams and may be willing to retain their team membership. However, in contrast to our finding, a group of primary health care providers in Salamanca, Spain had perceived a low team cohesion among their teams.[37] This was based on the lack of common objectives, high level of intolerance among team members and poor work sharing in that population studied. Non-cohesion in teams could negatively affect the mental health of team members. Evidence in the literature revealed a positive association between employees' mental health and a good work climate which includes a supportive work atmosphere and group cohesion.[38] Hence, efforts should be made to always improve team cohesion.

Nonetheless, there was no significant association found between respondents' preferred conflict management styles and their perceived team effectiveness or team cohesion. Rather, their perceived team cohesion and effectiveness were associated with the frequency of conflict occurrence in our study. In contrast, a study of heterogeneous samples of teams who were observed while performing non-routine tasks showed that the competing and collaborating conflict management styles were negatively associated with the teams' effectiveness as they were reported as distracting to the teams. However, the avoidance style was positively associated with the teams' effectiveness. Our study findings may have differed from theirs because they recruited participants who were grouped into teams, and who worked together on a defined project while our participants were work teams who may not have had a defined project in the hospital.[39]

An increase in age and shorter duration of experience working with teams were significantly associated with the respondents perceiving their teams to be both cohesive and effective in our study. Age was also found to be significantly associated with perceived team effectiveness in a study which measured the effectiveness of an interdisciplinary team working in long-term care.[40]

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Persons with fewer years of experience working with a team may still be more positive about the team, unlike persons who had stayed much longer and had possibly experienced more disappointments in the team which may affect the positive perception of their team. Also, younger members of a team may be more willing to contribute significantly to teams and hence have more positive perceptions for the team rather than older team members who may have given up on the team.

Strength of the study

This study has established that healthcare professionals in the study setting are willing to work together as teams despite their team diversity. This is a strength as health service delivery is heterogeneous and one person cannot individually meet the demand of patients but would need the contributions from other team members. Our study did not only assess the preferred conflict management styles adopted by the health professionals studied, but we also explored the consequences on their perceived team effectiveness and cohesion. This is the premier study that explored this concept among health professionals in Africa to the best of our knowledge.

Limitations

The non-selection of an existing team with defined goals is a limitation for this study. The inability to objectively and directly measure the team's cohesiveness or effectiveness is a limitation of this study. We had to rely on the team members' reported perceptions of their teams. However, the reliability tests done on the tools assessing their team's perceived cohesion and effectiveness returned very high Cronbach's alpha >0.8.

Conclusion

In conclusion, the majority of the health professionals we studied in this setting adopted the negative conflict management styles, which may lead to unresolved conflicts and could predispose the team to more conflicts. However, the respondents' preferred conflict management style was not significantly associated with their perceived team cohesiveness or effectiveness. Health professionals with a lesser duration of teamwork experience, and those with occasional and rare personal experience of conflicts with their teammates tended to perceive their teams as being more effective and cohesive. Hence, reshuffling team members into new teams may be more productive than retaining long-standing team members in teams perpetually. It is also recommended that health professionals be equipped with skills to adopt positive conflict management styles. It is hoped that this will ensure more cohesive and effective health teams. Studies that objectively measure team cohesiveness and effectiveness are also recommended.

Declarations

Ethical Consideration: The author declares that we complied with the Declarations of Helsinki in the conduct of this research and obtained relevant ethical approvals.

Conflict of interest: The author declares that there are no conflicts of interest related to this study.

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