



MEASURING COMMUNICATION IN CLOSE RELATIONSHIPS: INITIAL DEVELOPMENT OF DYADIC COMMUNICATION ASSESSMENT SCALE

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Abstract

Communication is the bedrock of human interpersonal relationships. With efficient communication, marital interaction will be exciting and enjoyable. The aim of this work was to present a new scale for assessing communication in close relationship – the dyadic communication assessment scale (DCAS). Two hundred and sixty-three persons participated in the study. They were drawn from an urban area in a city in the East of Nigeria. Their age range = 22-70. The instrument for data collection was the Dyadic communication assessment scale (DCAS). The psychometric properties of the DCAS were presented. The DCAS has three factors, which were confirmed through confirmatory factor analysis with good indices. The DCAS has good internal consistency. Thus, the DCAS could be used for research and diagnostic purposes.

Keywords: Communication; Scale; Item Analysis; Confirmatory Factor Analysis; Diagnosis

Introduction

Marriage is a dyadic relationship. It is a relationship involving two adults that are willing to engage one another in the business of sharing their lives. Being in a marriage relationship is potentially an avenue for harmonious communication for married people. Marriage relationship appears to be stressful for some married persons, but harmonious for some others. A harmonious communication between husband and wife promotes marital harmony and stability (Esere, Ake-Yeyeodu, & Comfort, 2014; Immanuel, Muo, & Nzenweaku, 2017). A good number of relationships have challenges, but a healthy communication style can make it easier to deal with conflict and build a stronger and healthier partnership. Communication is conceptualized as the transfer of information from one place to another (Knoss, 2017). In relationships, communication allows a person to explain what he or she is experiencing and what the needs are.



Communication skills are ability to symbolically and efficiently transfer the meanings and messages one has in mind (Knoss, 2017).

Communication is an interaction process in which one person sends a message to another. In interpersonal communication, at least two people are involved. Communication is a process – it is composed of a series of action, for instance, one person talks and another listens, one responds and another listens, and the process continues. Communication is interaction – all the participants send as well as receive information when they are interacting. It is noteworthy that in communication, one both speaks and listens. There are non-verbal components as well, e.g., posture (how one sits or stands), personal space (proxemics), facial expression, eye contact (mutual gaze), and body language – body movements of e.g., head, trunk, hands, legs, feet, and touch. Without effective communication, the milestones achieved by humanity in civilization would have been a mirage. In interpersonal relationship, it is effective communication that elevates human interaction far above that of animals. A positive interpersonal climate exists when people feel they can be open rather than guarded or defensive in their communication.

Communication is effective when it communicates empathy. Effective communication is nonjudgmental, and honest/authentic (no hidden agenda); one approaches others as equals, there is flexibility of opinion and self-disclosure – sharing information about self with another person. Sharing fears and challenges with others who are trustworthy and supportive plays a key role in mental health. Emotional self-disclosures lead to feelings of closeness (Reis & Patrick, 1996). Self-disclosure in intimate relationships correlates positively with relationship satisfaction (Sprecher & Hendrick, 2004).

Evidence from literature review has shown that marital communication can be verbal and nonverbal communications between spouses. Marital communication has been studied most widely in the context of heterosexual relationships (Immanuel et al., 2017). Therefore, most frequently, communication behaviors in relationships are studied in terms of how they are associated with relationship satisfaction, with



comparisons being made between the communication behaviors of satisfied couples and the communication behaviors of dissatisfied couples (Doohan, 2014; Farah & Aneesh, 2018; Immanuel et al., 2017). Effective communication has been identified as a hub of all marriage relationships. For example, studies (e.g., Uwom-Ajaegbu, Ajike, Fadolapo & Ajaegbu, 2015) found that most of the respondents in the study agree to the statement that lack of effective communication is the bane of marriage. However, Farah and Aneesh (2018) found that communication among couples can predict satisfaction of their marital life.

Systems theory is a theory of human communication. It explains how individuals-in-interaction are interdependent (Rapoport, 1968). One of the central assumptions of the Systems Theory is that communication is the means by which systems are created and sustained. There is a macro and micro approach to the Systems theory in the sense that larger systems in society, for instance, governments affect smaller units such as families, and smaller systems affect the larger units. Also, people, for instance, dyads influence one another in the interactional process. Watzlawick, Bavelas, and Jackson (1967) observed that communication is inevitable in human relationships, as they asserted: "One cannot not communicate" (Watzlawick, et al., 1967, p. 51). When couples or dyads in relationships communicate honestly, with self- and other-disclosure, there is likely to be satisfaction and general harmony in the relationship, otherwise relationship can be pathological when the flow is interrupted.

Communication is the bedrock of human interpersonal relationship. Success in any human endeavor for instance, business, politics, government, religion, ministry, science, etc. can be traced to effective communication. The importance of communication is felt more acutely in marital relationships where partners have to relate at intimate levels. Communication problems could lead to stalemate in intimate relationships. Communication is the bedrock of any relationship. Yet, many persons in relationships do not pay attention to quality of communication in their interactions, giving rise to dissatisfaction and conflict in many relationships. Even though communication is invaluable in intimate relationships, few scales exist that measure



dyadic communication. Yet, scholars have emphasized the necessity of accurate and timely diagnosis in enhancing treatment of myriads of human pathology (Balagh, Miller, & Ball, 2015; Carter, Müller-Stöver, Östensen, & Heuck, 2005; Khullar, Jha, & Jena, 2015). In Nigeria, the author is unaware of any scale that assesses dyadic communication. The paper reports on the development and psychometric properties of the Dyadic Communication Assessment Scale (DCAS).

Method

Participants

Two hundred and sixty-three persons were sampled using accidental sampling from Nsukka Local Government headquarter, Nsukka, Enugu State, Nigeria. They were one hundred and thirty-one (131) women, and one hundred and thirty-two (132) men. Their age range was 22 to 70 ($M = 41.26$; $SD = 10.45$). 123 (46.8%) participants had the West African Examination Council certificate or its equivalent as the highest education, whereas 140 (53.2%) had higher degrees. Civil Servants were 98 (37.3%), privately employed persons were 107 (40.7%), whereas those employed in the parastatal were 58 (22.1%).

Instrument

Dyadic Communication Assessment Scale (DCAS)

The Dyadic Communication Assessment Scale (DCAS) was designed to assess the quality of communication among dyads – married persons as well as partners who are involved in close relationships. The DCAS has five response options ranging from Rarely (1) to Always (5). Items that represent ineffective communication are reversed during scoring. Example of items in the scale are: “My partner listens attentively regardless of her/his other engagements”, “We discuss what happens at home”. The items in the scale were obtained from literature on communication, and based on the authors’ knowledge of effective communication. The original scale contained 26 items. Two experts in



marital therapy vetted the 26-item DCAS for face and content validity and considered the items valid.

The 26 items DCAS was administered to one hundred and two (102) adults drawn from academic and administrative staff of a university in Eastern Nigeria. Their age range was 18-74 years. The responses of the people were subjected to item analysis, giving rise to 18 items. Since the last validation study was done in 2008 (Onyeizugbo, 2008), the author decided to reassess the validity of the DCAS.

Procedure

The 18-item DCAS was administered to two hundred and sixty-three (263) persons. They were approached individually, some of them as they attended marital counseling at the counseling center at the Local Government Office, whereas some came to the Local Government Headquarters for personal visits or transactions. Those who were available, and were willing to volunteer to fill the research form participated in the study. The duly completed forms were subjected to item, exploratory and confirmatory factor analyses.

Design/Statistics

The design of the research was exploratory. The statistical analyses were conducted using SPSS and LISREL 8.80. The following parameters were assessed.

Exploratory Factor Analysis (EFA)

Kaiser-Meyer-Olkin (KMO) was used to assess whether or not the items have enough pattern of inter-correlations such that they could be explained by a smaller number of factors, with values of 0.5 or above considered as adequate (Kaiser, 1974). The maximum likelihood method of extraction and an oblique rotation were also employed. Internal consistency was assessed through Cronbach's alpha, whereby alpha values of 0.70 and above were considered acceptable (Schmitt, 1996).

Confirmatory Factor Analysis (CFA)



CFA was conducted with LISREL 8.80. Parameters and cut-offs include: Root Mean Square Error of Approximation (RMSEA) range $<.050$ to $.080$ (although RMSEA between $.06$ and $.08$ is considered poor, see Hu & Bentler, 1998). Comparative Fit Index (CFI), Non-Normed Fit Index (NNFI) and Incremental Fit Index (IFI), all of which sought a range of $.90$ to $.99$ (see Bentler, 1990).

Results

The exploratory factor analysis (EFA) gave rise to three factors, namely:

Factor 1: 4, 6, 7, 8, 9, 10, 15 - Responsive Communication.

Factor 2: 1, 2, 3, 11, 13 - Blocked Communication.

Factor 3: 5, 12, 14, 16 - Self-Disclosure.

The Kaiser-Meyer-Olkin Measure of sampling adequacy yielded $.91$. This shows that the items have enough compact pattern of inter-correlations such that they could be explained by a smaller number of factors.

Table 1: Rotated Component Matrix for Dyadic Communication Assessment Scale (DCAS)

Indicators	Component		
	Factor 1	Factor 2	Factor 3
1. Whether I think I understand my partner's point or not, I act as if I do		.731	
2. My partner is unaware of, or ignores my gestures, advances and my other non-verbal behavior		.599	



3.	The way my partner responds to the issues I bring up makes me feel he/she is attacking me	.765
4.	My partner listens attentively regardless of her/his other engagements	.552
5.	He/she is open to new ideas	.648
6.	My partner commands me to do things	.698
7.	My partner is open to my suggestions	.681
8.	I listen to my partner	.738
9.	My partner is quick to compliment me when I do things well	.668
10.	When my partner speaks, he/she presents a positive image of me	.501
11.	My partner withholds her/his feelings toward me	.646
12.	We discuss what happens at home	.741
13.	My partner will rather work on her/his decision than ask for my opinion	.576
14.	We discuss our experiences at the end of each day	.737
15.	When my partner has neglected to treat me well, I let her/him know about it	.517
16.	We have interest in hearing about what we think of each other and our behavior	.706

Confirmatory Factor Analysis (CFA)

The CFA for the three-factor structure of the scale was adequate. The value of the Root Mean Square Error of Approximation (RMSEA) was .050. Hu and Bentler (1998) stated that as a rule of thumb, RMSEA ranging from <.050 to .080 is acceptable (although between .06 and .08 is considered poor). The CFA also showed the following indices: Non-Normed Fit Index (NNFI) = 0.98, Comparative Fit Index (CFI) = 0.98, Incremental Fit Index (IFI) = 0.98. These indices are all acceptable (Bentler, 1990).



Reliability

When the scale was subjected to Item Analysis, two items that loaded less than .30 were dropped. 16 items (See Appendix) survived. Minimum loading for the items was .46, whereas maximum loading was .65. Internal consistency was determined using Cronbach's Coefficient Alpha. Cronbach's Alpha reliability for the total scale is .90. Split half reliability is .88. Alpha for Factor 1 (Responsive Communication) is .83, Alpha for Factor 2 (Blocked Communication) is .76, and alpha for Factor 3 (Self-Disclosure) is .78. These suggest that DCAS has good internal consistency for the Scale as a whole, and for all the factors.

Discussion

The study is an attempt at the initial validation of a new scale that assesses communication in marital/dyadic relationship. Factor analysis resulted in three (3) factors, namely: Responsive Communication, Blocked Communication and Self-Disclosure. These factors have good internal consistency. One can use the DCAS as a full scale both in research and clinical assessment. Equally, one with specific need/interest can use any of the sub-scales for research and for diagnostic purposes. For instance, if a couple in distressed relationships present for assessment and therapy, it is not enough to know that they scored low in communication (DCAS), in what dimension of communication is their challenge? It could be lack of self-disclosure or there is a blockage as the case may be. Diagnosing the particular domain of deficit goes a long way in enabling the therapist/counselor to channel appropriate treatment to the right target. The importance of appropriate diagnosis has been called for by stakeholders in healthcare (Balagh, et al., 2015; Carter, et al., 2005; Khullar, et al., 2015), and DCAS will aid in accurate diagnosis of communication difficulties in marital/dyadic relationships.

In summary, the DCAS is a new scale with robust psychometric properties that can be used to assess the quality (effective vs. ineffective) of communication among dyads (married, cohabiting or intimate partners), with the view to facilitating self-understanding and psychological intervention in distressed relationships. The sub-



scales can be used separately to study specific communication targets, otherwise, the use of the full scale is highly recommended in research, most especially for clinical assessment.

Conclusion

The present study presented a new psychological scale – the Dyadic Communication assessment scale (DCAS) - for assessing communication in close relationships. The DCAS is a reliable and valid measure of communication in close relationships. The major limitation of this work is that it was validated on persons from one locality in the Eastern part of Nigeria. It is therefore recommended that more researches be carried out to generate psychometric data from people of diverse backgrounds, nationally and internationally as strong evidence of the utility of the Dyadic Communication Assessment Scale (DCAS).



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Appendix

Dyadic Communication Assessment Scale (DCAS)

Instructions: Below are statements suggesting ways you and your partner (friend or spouse) communicate in your relationship. Indicate your honest assessment of your relationship by writing the number corresponding to your option in the space by the right of each statement. Use the response options below as a guide in your responses.

Response Options:

1=Rarely; 2= Sometimes; 3=Often; 4=Usually; 5=Always

1. Whether I think I understand my partner's point or not, I act as if I do ----
2. My partner is unaware of, or ignores my gestures, advances and my other non-verbal behavior ----
3. The way my partner responds to the issues I bring up makes me feel he/she is attacking me ----
4. My partner listens attentively regardless of her/his other engagements ----
5. He/she is open to new ideas ----
6. My partner commands me to do things ----
7. My partner is open to my suggestions ----
8. I listen to my partner ----
9. My partner is quick to compliment me when I do things well ----
10. When my partner speaks, he/she presents a positive image of me ----



- 11. My partner withholds her/his feelings toward me -----
- 12. We discuss what happens at home -----
- 13. My partner will rather work on her/his decision than ask for my opinion -----
- 14. We discuss our experiences at the end of each day -----
- 15. When my partner has neglected to treat me well, I let her/him know about it -----
- 16. We have interest in hearing about what we think of each other and our behavior -----