

# Unmet needs for support in activities of daily living among older adults in Southwestern Nigeria: do family and household structures matter?

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## Introduction

Old age is characterised with decreasing health and physical functioning which warrant external support to maintain wellbeing. One of the areas of life affected by the health deterioration is the Activities of Daily Living (ADL). Individuals with difficulties in the usual ADL may be exposed to self-injury, domestic hazards and poor quality of life (Edemekong, Bomgaars, Sukumaran, & Levy, 2020). Hence, Access to informal support at old age is imperative to stay safe, healthy and improve quality of life (Aoyagi, Park, & Shephard, 2010; Govender & Barnes, 2014; Gureje et al., 2006; (Pearl, 2015). Though informal support comprises supports from family, friends, neighbours, social groups and community members, supports in ADL is often limited to family or household members and to some extent neighbours. Unfortunately, family supports are declining in Nigeria, as in many other SSA countries (Aboderin, 2004; Akinyemi & Akinlo, 2014), due to unstable economic condition, financial incapacity of older adult's children and increasing women involvement in labour force (Aboderin, 2004; Ogwumike & Aboderin, 2005; Togonu-bickersteth & Akinyemi, 2014). In addition, the changing African traditional family settings, migration, AIDs and mortality of younger generation (Akinyemi & Akinlo, 2014; Shofoyeke, 2014), have shrunk the channels through which older members derive support.

The term ADL refers the fundamental abilities of an individual to live independently (Edemekong et al., 2020). It encompasses the Basic Activities of Daily Living (B-ADL) and instrumental activities of daily living (I-ADL). The B-ADL are the individuals' abilities to independently manage their fundamental physical needs including the ability to ambulate in a walking distance, feed oneself, maintain personal hygiene such as bathing and dental cleaning, managing continence and toileting appropriately. The I-ADL involves more complex activities relating ability for independent living in the community. These include ability to manage telephone, manage laundry and personal dressing as well as appearance, do shopping and run errands, transporting self either by driving or taking public transport, prepare own meal, manage own medication as directed, do housework and manage own finances (Edemekong et al., 2020). While difficulties in I-ADL may still be managed by some older adults, difficulties in B-ADL indicate a severe inability requiring significant dependence on support.

The unmet needs, referring to older adults' needs which are partially addressed or entirely unaddressed, ensue amidst declining support from social networks. Older adults who consistently lacks timeous and adequate support risk severe unmet need, health impairment and sudden death. For instance, in the United Kingdom, 55% of the elderly with difficulties in B-ADL and 24% in I-ADL were experiencing unmet need (Vlachantoni, 2017). Other authors shared similar views about the prevalence of unmet need for support B-ADL from other contexts (He et al., 2015; Schure et al., 2015; Vlachantoni et al., 2011). Though more evidence is needed from various cultural and socioeconomic settings, older adults in SSA, especially in Nigeria share similar ordeal, with about one-fifth reporting unmet needs in ADL support (Gureje et al., 2006).

The response of family as well as household members to the needs of older adults in areas of ADL may be influenced by the family and household structures. For instance, some evidence suggests that closeness with families was associated with increased receipt of informal support (Chatters *et al.*, 2002). Other recent studies also supported the existing studies on this relationship (Hamren, Chungkham, & Hyde, 2015; Teh et al., 2014). Amidst the global pool of evidence on the role of family structure on access to ADL support, there has been a little contribution from the SSA (e.g. Kodzi, Gyimah, Emina, & Ezech, 2010) with lower socioeconomic condition (Aboderin, 2005; National Research Council., 2006; United Nations Development Programme, 2016) and contextual diversities compared to the developed regions. Evidence from Southwestern Nigeria, a subset of SSA, will advance knowledge on the role of family structures on ADL support. Besides, older adults in South-Western Nigeria whose cultural, socioeconomic, political and environmental contexts differ from other regions' may respond differently to the found relationship. This study investigates the influence of family and household structures on the unmet need for ADL support among older adults in Southwestern Nigeria.

## Methods

The study was based on quantitative primary data collected on older adults aged 65 years or over in Oyo State, one of the states in Southwestern Nigeria. The study was based on a total sample of 827 older adults selected using multistage cluster sampling procedure. Relevant information relating to the respondents' sociodemographic characteristics, family and household characteristics, ADL difficulties and corresponding support received were collected using well-structured questionnaire. The study data relating to the respondents' sociodemographic characteristics, social support networks, types and extent of support received were collected and managed electronically using Research Electronic Data Capture (REDCap) tools hosted at the University of the Witwatersrand, Johannesburg, South Africa (Harris, Taylor, Thielke, Payne, Gonzalez & Conde, 2009; Harris et al., 2019)

The outcome variable for this study is the experience of unmet need for support in ADL by older adults. In order to measure the unmet need, older adults were asked about the extent to which they have difficulties or need in each ADL item in the last 30 days. The extent of difficulty was measured on a 3-point scale of 0 for no difficulty/need, 1 for moderate difficulty and 2 for severe difficulty. They were also asked about the extent to which they received support in the aforementioned items in the last 30 days with the responses: adequate support (coded 0), limited support (coded 1) and no support (coded 2). Combining the questions on the extent of ADL difficulties and support received, respondents who had no difficulties and those with difficulties but received adequate support were categorised as having no unmet need (code=0); while respondents who had either moderate or severe difficulties but received limited or no support were categorised as having unmet need (code=1) in each of the items. Respondents were regarded as having unmet need if they have unmet need in one or more of the ADL items. The explanatory variables were the family and household characteristics including family size, number of living children, family type, household living arrangement, household headship, proximity to children/caregivers, family bond, children's socioeconomic status and type of house of residence. Other explanatory variables operationalized as covariates include age, level of education, marital status, religion, rural-urban residence, wealth status and participation in economic activity.

The data were analysed at univariate, bivariate and multivariate levels. At univariate level, percentage distribution was used to present the socio-demographic characteristics of the respondents and the prevalence of unmet need for support in ADL. Bivariate associations were examined using Chi-Squared test of independence while the multivariate analysis utilised binary logistic regression at 95% confidence interval.

## Results

The results in Figure 1 indicates the overall unmet needs for support in B-ADL and I-ADL which were computed from the various ADL items. The result shows that a larger proportion (35%) of the older adults reported unmet needs for support in I-ADL compared to B-ADL (20%). This pattern was followed among male and female. However, slightly higher proportion of the older women (37%) compared to men (33%) reported unmet need for support in I-ADL with a wider gap in B-ADL, 17% versus 23% respectively.

### ***Bivariate association between family/household structures and unmet needs for ADL support among older adults in Southwestern Nigeria***

The result in Table 1 shows that the experience of higher unmet need was significantly associated with fewer number of living children, living alone or with non-family, being far away from the family caregivers, and living in rented or other people's house ( $p < 0.05$ ). Having many children present the advantage of multiple sources of support in latter-life. Unmet need was higher among older adults with 2–4 living children (44%) compared to their counterparts with 5 or more living children (32%). Also, older adults living alone (43%) or living with non-families (42%) reported higher unmet need relative to the ones living with their immediate family – spouse or children or both (32%). Similarly, unmet need was higher for older adults living far away (38%) or moderately far (42%) from their children/caregivers compared to those living near (30%). Also, living in a house surrounded by family and friends may enhance better support. Older adults living in own/children's house (36%) or in inherited house (31%) experienced lower unmet need relative to their counterparts living in rented or other people's house (43%).

There are gender disparities in the factors associated with unmet need for ADL. While the unmet need was associated with fewer number of living children among older women, it shows no association among older men. Similarly, though unmet need was associated with proximity to children/caregivers in the pooled data, the significance was consistent

only among older women. Also, though household living arrangement and type of house of residence were significantly associated with the unmet need as identified above, it shows no association among older male and female data analysed separately. Though household headship shows no association with the unmet need in the overall data, it was a significant factor in the gender-based analysis. While the unmet need was lowest among older men who were the household head (35%), it was highest among older women who were the household head (43%).

**Multivariable analysis: Family and household structures and unmet needs for ADL support**

With regards to family characteristics, the unadjusted odds ratio result in Model 1 of Table 2 indicated that having 5 or more family size (OR=0.65; p<0.05; 95% C.I.=0.44 – 0.97) and living with immediate family members (OR=0.64; p<0.05; 95% C.I.=0.46 – 0.90) were significantly associated with about 34–35% lower odds of experiencing unmet needs in ADL support. Conversely, having caregivers with high socioeconomic status was associated with 47% higher odds of the unmet need compared to having children with low socioeconomic status. Adjusting for socio-demographic characteristics in Model 2, all associated factors lost significance.

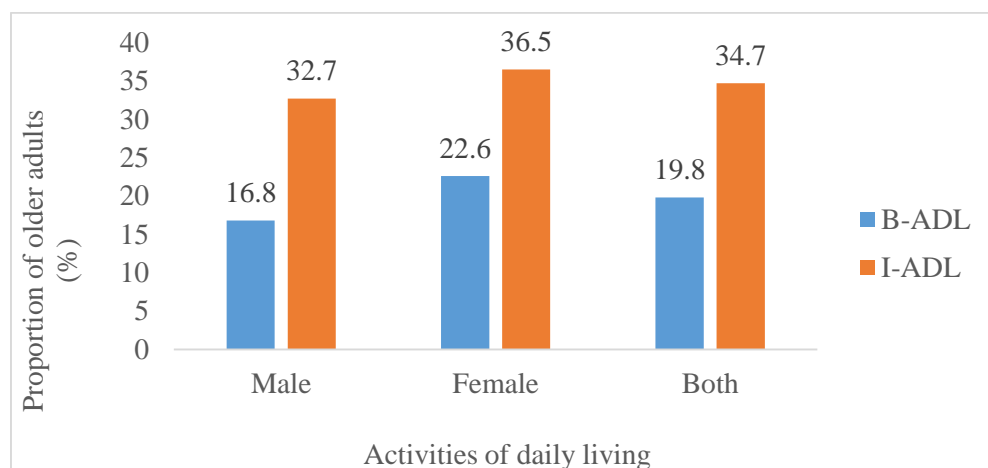


Figure 1: Prevalence of unmet need for ADL support among older adults in Oyo State

Table 1: Bivariate association between unmet needs for support in ADL and family/household structures, of older adults

Family structures	Male (N <sub>m</sub> =394)			Female (N <sub>f</sub> =433)			Both (N=827)		
	n (%)	n <sub>m</sub>	χ <sup>2</sup>	n (%)	n <sub>f</sub>	χ <sup>2</sup>	n (%)	N	χ <sup>2</sup>
Household size									
One	26 (44.1)	59	2.967	45 (42.9)	105	3.313	71 (43.3)	164	4.439
2 – 4	57 (31.8)	179	(P=0.227)	82 (41.2)	199	(P=0.191)	139 (36.8)	378	(P=0.109)
5 or more	53 (34.0)	156		42 (32.6)	129		95 (33.3)	285	
No of living children									
One or none	5 (31.3)	16	0.266	13 (38.2)	34	15.472	18 (36.0)	50	11.213
2 – 4	48 (36.1)	133	(P=0.876)	95 (49.0)	194	<b>(P&lt;0.001)</b>	143 (43.7)	327	<b>(P=0.004)</b>
5 or more	83 (33.9)	245		61 (29.8)	205		144 (32.0)	450	
Family type									
Monogamy	85 (36.6)	162	1.122	72 (37.1)	194	0.543	157 (36.8)	401	0.0003
Polyandry	51 (31.5)	232	(P=0.289)	97 (40.6)	239	(P=0.461)	148 (36.9)	426	(P=0.987)
Household head									
Self	105 (35.0)	300	LR=9.102	107 (42.8)	250	LR=8.027	212 (38.6)	550	7.554
Spouse	6 (66.7)	9	<b>(P=0.028)</b>	35 (40.2)	87	<b>(P=0.045)</b>	41 (42.7)	96	(P=0.056)
Son/Daughter	12 (21.8)	55		21 (31.8)	66		33 (27.3)	121	
Others	13 (43.3)	30		6 (20.0)	30		19 (31.7)	60	
Household living arrangement									
Alone	38 (41.3)	92	3.072	48 (44.0)	109	5.208	86 (42.8)	201	8.988
With immediate family	79 (31.5)	251	(P=0.215)	70 (33.5)	209	(P=0.074)	149 (32.4)	460	<b>(P=0.011)</b>
With others	19 (37.3)	51		51 (44.4)	115		70 (42.2)	166	
Proximity to children/caregiver									

Far	29 (34.9)	83	1.861	33 (41.8)	79	9.995	62 (38.3)	162	10.931
Neither far to near	58 (38.2)	152	(P=0.394)	91 (45.5)	200	<b>(P=0.007)</b>	149 (42.3)	352	<b>(P=0.004)</b>
Near	49 (30.8)	159		45 (29.2)	154		94 (30.0)	313	
Family bond									
Weak bond	23 (34.9)	66	0.014	41 (40.6)	101	5.469	64 (38.3)	167	3.763
Moderate bond	39 (34.8)	112	(P=0.993)	70 (45.2)	155	(P=0.065)	109 (40.8)	267	(P=0.152)
Strong bond	74 (34.3)	216		58 (32.8)	177		132 (33.6)	393	
Children's socioeconomic status									
Low	19 (25.3)	75	3.845	28 (35.9)	78	1.781	47 (30.7)	153	4.738
Average	21 (33.3)	63	(P=0.146)	22 (33.3)	66	(P=0.410)	43 (33.3)	129	(P=0.094)
High	96 (37.5)	256		119 (41.2)	289		215 (39.5)	545	
Type of house of residence									
Own/children's house	71 (34.1)	208	2.510	88 (38.3)	230	3.648	159 (36.3)	438	6.185
Inherited house	26 (29.2)	89	(P=0.285)	31 (33.0)	94	(P=0.161)	57 (31.2)	183	<b>(P=0.045)</b>
Others (rented, others' house)	39 (40.2)	97		50 (45.9)	109		89 (43.2)	206	

Table 2: Binary logistic regression analysis of the determinants of unmet needs for support in ADL among older adults in Oyo State, Nigeria.

Family/household characteristics	Categorisations	Model 1	Model 2
		Unadjusted OR (95% C.I.)	Adjusted OR (95% C.I.)
Family size	One	1.00	1.00
	2 – 4	0.76 (0.52 – 1.11)	1.05 (0.46 – 2.35)
	5 or more	0.65 (0.44 – 0.97)*	0.96 (0.41 – 2.21)
No of living children	One or none	1.00	1.00
	2 – 4	1.38 (0.75 – 2.56)	1.10 (0.52 – 2.35)
	5 or more	0.84 (0.45 – 1.54)	0.72 (0.34 – 1.55)
Family type	Monogamy	1.00	1.00
	Polyandry	1.00 (0.75 – 1.32)	1.10 (0.76 – 1.54)
Household head	Someone else	1.00	1.00
	Self	0.81 (0.60 – 1.09)	0.92 (0.63 – 1.44)
Household living arrangement	Alone	1.00	1.00
	With immediate family	0.64 (0.46 – 0.90)*	0.77 (0.38 – 1.55)
	With others	0.98 (0.64 – 1.48)	0.81 (0.36 – 1.83)
Proximity to caregiver	Far	1.00	1.00
	Neither far to near	1.18 (0.81 – 1.73)	1.30 (0.82 – 2.03)
	Near	0.69 (0.46 – 1.03)	0.87 (0.53 – 1.42)
Family bond	Weak bond	1.00	1.00
	Moderate bond	1.11 (0.75 – 1.65)	1.26 (0.78 – 2.08)
	Strong bond	0.81 (0.56 – 1.19)	1.04 (0.62 – 1.77)
Caregiver's SES	Low	1.00	1.00
	Average	1.13 (0.68 – 1.86)	1.05 (0.56 – 1.87)
	High	1.47 (1.00 – 2.16)*	1.48 (0.88 – 2.33)
Type of apartment	Own/children's house	1.00	1.00
	Inherited house	0.79 (0.55 – 1.15)	0.84 (0.55 – 1.30)
	Others (rented, others' house)	1.33 (0.95 – 1.87)	1.06 (0.70 – 1.64)

Note: Model 1 – unadjusted odds ratio for each variable; Model 2 – adjusted for socio-demographic characteristics

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001; † significant at 90% C.I. (p<0.1)

## Conclusion

The family and household structures play vital roles in addressing the needs of people who are in their later life. The study found that household living arrangement plays important role in the level of unmet need of older adults in the study area. Though not sufficient to predict the unmet needs at multivariate levels, living with immediate family member was associated with reduced unmet need for support in ADL. This association may be linked to the existing evidence that while living alone among older adults is on the increase and is consequential on their wellbeing (Mobolaji, Eboiyehi, & Akinyemi, 2018), living with family members helps to strengthen domestic support and resource sharing among the family or network members. The study suggests that on one hand, intervention should be geared towards providing enabling environment for families to support the elderlies. On the other hand, it suggests the need to look beyond family support in addressing the need of older adults in Southwestern Nigeria.