Influence of social networking on the psychological adjustment of adolescents with hearing impairment in Ibadan, Oyo State, Nigeria

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ABSTRACT

This study investigated the influence of social networking (SN) on the psychological adjustment of adolescents with hearing impairment in Oyo State, Nigeria. The study adopted a descriptive survey research design. A purposive sampling technique was employed to select adolescents with hearing impairment. A simple random sampling technique was also used to select 126 adolescents with hearing impairment who were thirteen years and twenty three years of age from both the junior and the senior secondary schools in Ibadan, Oyo State. 3 research questions were generated and one hypothesis was formulated. Data were collected through a structured questionnaire tagged "Social Networking (Social Media) Scale" with a reliability coefficient of 0.74. Data were analysed with inferential statistics of Pearson Product Moment Correlation, Multiple regression and Analysis of Variance (ANOVA). The findings revealed that use of SN have a positive significant relationship with emotional intelligence ($r = .601$; $P < .05$) and self-esteem ($r = .280$; $P < .05$) while SN has an insignificant relationship with loneliness ($r = -0.150$, $p > 0.05$) among adolescents with hearing impairment. The finding also found a joint relationship between use of SN, emotional intelligence, self esteem and loneliness ($F_{(3,125)} = 33.052$, $P < 0.05$). The study found no significant difference in the use of SN among male and female adolescents with hearing impairment ($t = 0.796$; $df = 124$; $p > 0.05$). The study concluded that use of SN have a great influence on psychological well-being, access to information, sustaining relationships and self expression among adolescents with hearing impairment. Based on these findings, it was recommended that adolescents with hearing impairment should be actively involved in physical and social activities with their hearing peers in order to boost their self esteem and emotional intelligence while it will eliminate issues of social isolation and facilitate social inclusion.

Keyword: Social networking, hearing impairment, psychological adjustment, adolescents.

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INTRODUCTION

Hearing impairment is a hidden disability, which cannot be observed by merely looking at physical features alone, but becomes evident only in the context where communicative skills via auditory-verbal processes are needed. This may result in an extended period of tantrums or becoming withdrawn. Such abnormal behavior inevitably has repercussion for the normal process of early interaction and language development which in turn has implication for adjusting well to his/her social environment. Hearing loss disorganizes the whole personality of the affected person, his physical, mental, social and psychological well-being. Oyewumi (2000) remarked that individuals with hearing impairment may be very intelligent but without the ability to understand their peers, express their feelings and wants, they are likely to be frustrated. At adolescence, individuals with hearing impairment are more likely to experience adolescence related problems far much more than encountered by his/her hearing peers. They could suffer peer rejection and some difficulty while attempting to

develop some necessary social skills required for getting on well with his hearing peers and the community (Ademokoya, 2008). Individuals with hearing impairment due to their communication limitation, they suffer relatively more when compared to their hearing peers because they lack the ability to fully integrate themselves into the world of hearing. Indeed, communication difficulty tends to have a significant influence on the well-being and quality of life of persons with hearing loss. Oyewumi et al. (2013) observed that there is a cascading effect of hearing loss on every aspect of a child's psychosocial development, self esteem, self efficacy, emotional development, family concern, social competence and overall perceived quality of life of individuals with hearing impairment.

Persons with hearing loss tend to separate psychologically from family norms and form a sense of self identity outside the family system and depend more on their colleagues with hearing loss and media than on parents, teachers and other adults for social recognitions and reward. However, Isaiah (2011) reported that adjusting to hearing impairment and accepting hearing loss can be difficult for many individuals as well as for their families. Hence, there is need for efficient psychological adjustment so as to ameliorate the psychological trauma associated with hearing loss. Psychological adjustment is defined in terms of emotional and affective outcomes. Psychological adjustment is however altered by life changes, coping abilities, personality characteristics and social support while positive psychological outcomes are related to positive experienced life changes, including the ability to cope adequately with the demands in the new culture and relationship satisfaction (Isaiah, 2011). As a consequence, low incidence of life changes and adequate social support facilitate psychologically adaptive outcomes. Psychological adjustment is, however, compromised when negative emotions are extreme or very long lasting and interfere with a person's ability to function in his or her daily life. The concept of feeling good among individuals with hearing impairment irrespective of gender incorporates not only the positive emotions of happiness and contentment, but also such emotions as interest, engagement, confidence, and affection. The concept of functioning effectively (in a psychological sense) involves the development of one's potential, having some control over one's life, having a sense of purpose (e.g. working towards valued goals), and experiencing positive relationships.

Over the years, persons with or without hearing disability have found solace in social media because its use provide an important backdrop for the social, emotional, cognitive and psychological development. One type of online application of media that has grown rapidly in prevalence and popularity in the recent years among the deaf is social networking on the Internet. Therefore, engaging in various forms of online social media is a routine activity that seems to benefit children and adolescents with disabilities by enhancing communication, social connection, and even developing their psychosocial skills. Social Network or Social media such as Facebook.com, Myspace.com, 2go.com, Instagram.com, Twitter.com, Badoo.com, WhatsApp.com and many more offer multiple daily opportunities for connecting with friends, classmates and people with shared interest. Social networks have a huge impact on modern way of life, including the change in inter-personal communication and interaction even among individuals with hearing impairment. The assertion of Pilling and Barrett (2007) seems not to have been different in the United States among the deaf people who placed more emphasis on Instant Messaging (IM—a method of having a real-time conversation through exchange of text messages, using software from a provider, such as MSN Messenger on an Internet connected computer) than SMS (Power and Power, 2004). A survey of deaf and hard-of-hearing people with Internet access (Bowe, 2002) described as "middle income, middle-aged and fairly well educated," found that 97% used e-mail from home and 75% used IM. Seventy-five percent of teenagers now own cell phones, and 25% use them for social media, 54% use them for texting, and 24% use them for instant messaging (Hinduja and Patchin, 2007).

Currently, virtually all adolescents with or without hearing disability are now on one or two social networking sites, spending much of their valuable time chatting, posting and sharing pictures with online friends with whom they may not have seen physically before (Oyewumi and Ibitoye, 2013). Social networking sites such as Facebook.com, WhatsApp.com, 2go.com, Eskimi.com, Twitter.com among others have been adjudged to have both advantages and disadvantages over the user. However, such attitude has caused damage to the physical interpersonal relationship with offline friends, impaired self esteem and has led many individuals to loneliness, disrupt emotion, and damaged self esteem.

The rate at which such social networking (social media) are being used by adolescents with hearing impairment calls for concern as it affects psychological well-being of individuals with hearing disability. Youssef and Youssef (2011) contend that rapid technological changes associated with Internet seems to have a deep impact on social interactions and the ways in which individuals interact with each other and build their social capital. On the other hand, research on excessive form of Internet usage has shown that uncontrolled or compulsive Internet use has been known to have negative effects on psychological well-being of adolescents, such as loneliness (Moody, 2001; Whang et al., 2003), and self esteem (Pempek et al., 2009).

Kraut et al. (1998) noted that incessant use of the Internet was associated with various measures of loneliness and stress among adolescents because of

weaker ties with family and friends. Loneliness can be conceived as a social pain and deficiency, which exists to the extent that a person's network of social relationships is smaller, or less satisfying than the persons' desire. Loneliness refers to experiences of isolation and to feelings of deprivation in relation to others, which coincide with either qualitative or quantitative deficiencies in one's interpersonal network (Weiss, 1973). Boomsma et al. (2005) noted that loneliness is aversive and its effect on physical health and psychological well-being indicates that loneliness may be a unique psychological risk factor whose effects are distinguishable from some combination of poor social support, depression, and personality traits among the deaf and hard of hearing. According to Flood (2005) people's perceptions of personal and social support are an important indicator of the social health of communities and social networks. However, the communities of the deaf/hard of hearing and that of the 'hearing' counterparts are fragmenting and our interpersonal relationships are in decline or, at least, that the nature of the relationships available to people in modern society is undergoing a damaging transition. Schluter and Lee (1993) argued that relationships with others are increasingly contingent, intermittent, provisional and with strangers, while relationships based on commitment, obligation and trusting interactions with known others are increasingly rare. Tanner (2003) takes up this same theme. He argues that 'We are leading more crowded lives, but slowly losing our sense of connection with each other,' in a society 'with less connection, more alienation, and more loneliness'.

The popularity of social network (SN) among adolescents has led to investigations of their effects on young users. SN use has been positively associated with high self-esteem and well-being (Valkenburg et al., 2006) and enhanced social capital (Ellison et al., 2007; Steinfield et al., 2008) and time series research suggests that SN use causes these effects (Steinfield et al., 2008). Valkenberg et al. (2006) in a study of Dutch social networking site members between 10 and 19 years found that users' self-esteem was directly related to the tone of responses received about information posted on their page (that is, profile) and that self esteem, in turn, was related to their overall well-being. Not surprisingly, Pempek et al. (2009) in their study ninety-two undergraduate students from two psychology classes at a private university in a large metropolitan area concluded that positive feedback was related to positive self esteem and negative feedback to negative self esteem. In a meta-analysis study of self-esteem, Bat-Chava (1993) examined the effects of family and school factors and the influence of deaf group identification. Overall, she found that deaf children of deaf parents had higher self-esteem than deaf children of hearing parents. In addition, self-esteem was higher among deaf people who used sign language. Related to group identification, the more strongly one identified with being a member of the Deaf community, the higher the self-esteem scores. In a 1994

study, Bat-Chava found that deaf people who grew up in environments that included other deaf people who used sign language were more likely to identify with the deaf community in adulthood, thus enhancing self esteem.

Although group identification (e.g., having primarily deaf friends, involvement in the Deaf community) contributed to higher self-esteem, group membership (e.g., having a level of hearing loss, but not feeling proud of being a member in the cultural group) was indicative of lower self-esteem. Kalpidou et al. (2011) found that people who spent more time on Facebook were more likely to have low self-esteem. Connecting these results with the often recreated finding that low self-esteem and a greater sense of loneliness are connected and the notion that most of the time spent on the Internet in general is being spent on Facebook – which means that the reported findings for high internet use should generally be applicable to Facebook too and Facebook use is associated with low self-esteem and a feeling of loneliness. But the picture is not all that clear, as some researchers like Brown (2011) argued that the connection between intensive use of online social networks and loneliness and emotional trauma existed in the past, but with the social networks becoming ever more popular, it does not anymore.

Emotions play a central role in many human activities. They shape cognitive processes, decision making and also convey meanings about relationships. The concept of emotional intelligence relates to traits and social skills that facilitate interpersonal behavior. Emotional intelligence (EI) focuses on the aspect of intelligence behavior that governs self-knowledge and social adaptation. An emotional intelligent person is considered as someone capable of monitoring his/her own and others' feelings and emotions, discriminating among them, and using this information to guide his/her thinking and action. Therefore, Emotional Intelligence is a personality trait characterized by the ability to regulate and control the emotions of the self and others (Mayer et al., 1999; Asuzu, 2008; Newness et al. (2012) posited that determining the effect of emotional intelligence on the disclosure of inappropriate information is theoretically complex, especially when considering that emotionally intelligent individuals may be increasingly aware of their own emotions and intentions, as well as the intentions and motives of others who may have access to the inappropriate information. More specifically, and in the context of disclosing information on social networking sites, emotional intelligent individuals will tend to be more cognizant of the negative social consequences of disclosing information and will understand what types of information are appropriate and inappropriate.

Szwedo et al. (2012) suggested that the social connections that young adults maintain on social networking websites, as well as certain aspects of their self-presentation on these sites, may predict residualized changes in their psychological well-being over time. One of the primary results of this study was that maintaining a

greater number of relationships online appears to have something akin to a leveling effect on young adults' future levels of psychological adjustment, predicting elevated well-being for young adults who perceived themselves to be less socially accepted but decreased well-being among individuals who perceived themselves to be more socially accepted. Through these websites, individuals may also view friends' profiles at any time to see what they have been doing, which may make them feel more connected to others' lives and enhance feelings of well-being. In the past decade, a number of studies (Kraut et al., 1998; Kraut et al., 2002; Bargh and Mckenna, 2004; Valkenburg and Peter, 2007) have explored how Internet use and social networking might be related to psychological well-being with mixed results among persons with hearing loss mostly in developed countries with little or none of such study on adolescents with hearing loss in Nigeria.

Kraut et al. (1998) found that heavier Internet use was associated with various measures of loneliness, depression and stress. They argue that this was because weaker ties generated online were replacing stronger offline ties with family and friends while Shaw and Gant (2002) found decreases in perceived loneliness and depression as well as increases in perceived social support and self-esteem following engagement in online chat sessions. In related research, Valkenburg and Peter (2007) found that socially anxious adolescents perceived the Internet to be more valuable for intimate self-disclosure than non-socially anxious respondents, leading to more online communication. Despite the plethora of research on Internet use in general, research examining the complex relationships between psychological well-being and use of online social network services is scarce even among Nigerian adolescents with hearing impairment. Therefore, this study will investigate the influence of social networking on the psychological adjustment of adolescents with hearing impairment in Oyo State, Nigeria.

Research questions

1. Are there significant relationships among the use of social networking, emotional intelligence, loneliness and self esteem among adolescents with hearing impairment?
2. Is there any significant composite relationship between the use of social network and psychological adjustment among adolescents with hearing impairment?
3. What is the relative contribution of social networking on emotional intelligence, loneliness and self esteem to adolescents with hearing impairment?

Hypothesis

There is no significant difference in the use of social network among male and female adolescents with hearing impairment.

METHODOLOGY

The survey descriptive research design was adopted for the study because the study only investigated the existing variable, which is the use of social networking, and its influences on psychological adjustment (self-esteem, loneliness and emotional intelligence) of adolescents with hearing impairment in Oyo state.

Participants

The participants for this study were in-school adolescents with hearing impairment in Oyo state. 4 integrated secondary schools for students with hearing impairment in Oyo state were purposively selected for the study. The study purposively sampled adolescents with hearing loss who were between thirteen (13) years and twenty three (23) years of age as research participants after which an approval had been given to the researchers by school administrators. The participants involved 68 male and 58 female adolescents with hearing impairment without any religious bias.

Instrumentation

The instruments used for this study is tagged "Social Networking Scale (SNS)" which was adapted from the UCLA Loneliness Scale, Rosenberg Self esteem scale as well as Emotional Intelligence scale. The research instrument is divided into sections A, B, C, D and E. Section A, has only nine (9) items for demographic information, Section B with seven (7) items elicit information on rationale for using social networking sites. Section B is rated on a four-point Likert scale of *"Very much like me", "Somewhat like me", "Not like me"* and *Very much not like me".* Section C was the emotional intelligence scale (α = .71), Section D was the Loneliness Scale (α = .89). Participants rated each item on the Loneliness Scale as; O *("I often feel this way")*, S *("I sometimes feel this way")*, R *("I rarely feel this way")*, N *("I never feel this way")*. Section E was the self esteem scale (α = .76). The reliability of the research instrument "Social Networking Scale (SNS)" was determined as a whole using the Cronbach Alpha. The research instruments were pre-tested to ensure its reliability. The research instrument Social Networking Scale (SNS) was found to be reliable at 0.74.

Data analysis

The data obtained from the questionnaire were analysed using inferential statistic involving the Pearson product moment correlation, multiple regression analysis and t-test respectively.

RESULTS

Hypothesis 1: There is no significant relationship among the use of social networking, emotional intelligence, loneliness and self esteem among adolescents with hearing impairment in Oyo State.

Table 1 shows that there is a positive and significant relationship between social networking and emotional intelligence (r = .601; P < .05); social networking and self esteem (r = .280; P < .05) while there was negative and

Table 1. Summary of test of correlation among use of social network, emotional intelligence, loneliness and self esteem among adolescents with hearing impairment.

	1	2	3	4
Use of social network	1.000			
Emotional intelligence	.601**	1.000		
Loneliness	-.150	.075	1.000	
Self esteem	.280**	.377**	.584**	1.000

Table 2. Joint relationship between use of social network, emotional intelligence, self esteem and loneliness.

Model		Sum of squares	Df	Mean square	F	Sig.
	Regression	1642.030	3	547.343	33.052	.000[a]
1	Residual	2020.327	122	16.560		
	Total	3662.357	125			

R = .670[a], R Square= .448, Adjusted R Square = .435, Std. Error of the Estimate = 4.06940.

Table 3. Relative contribution of the use of social networking to emotional intelligence, loneliness and self esteem.

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
	Constant	.594	3.166		.188	.851
1	emotional intelligence	.355	.051	.517	6.984	.000
	Loneliness	-.178	.042	-.362	-4.290	.000
	self-esteem	.341	.104	.297	3.267	.001

Coefficients[a]

insignificant correlation was found between social networking and loneliness (r = -.150; P > .05). This implies that the use of social networks influence the emotion, the way of reasoning and it influence the way persons with hearing impairment feel about themselves while communication with online friends. However, the use of social network does not necessarily mean that adolescents with hearing impairment feel lonely and there resolve for online interaction.

Hypothesis 2: There is no significant joint relationship between the use of social networks and psychological adjustment among adolescents with hearing impairment.

Table 2 shows that there is a significant joint relationship between the use of social network and psychological adjustment among adolescents with hearing impairment at R = 0.448. Therefore, a total of 44.8% the variance account for the use of social network among adolescents with hearing impairment. The joint relationship is also shown to be significant ($F_{(3,125)}$ = 33.052, P < 0.05). This implies that adolescents with hearing impairment may turn to use social networking sites in order to boost their self esteem, emotions and to avoid being lonely without having anyone to talk or chat with.

Hypothesis 3: There is no relative contribution of social networking on emotional intelligence, loneliness and self esteem to adolescents with hearing impairment.

Table 3 reveals the relative contribution of social networking on the psychological adjustment (emotional intelligence, loneliness and self esteem) of adolescents with hearing impairment. The table showed a negative relative contribution of social networking and loneliness (β = -.178, t = -4.290, p < 0.05) while there is a positive relative contribution of social networking on emotional intelligence (β = .355, t = 6.984, p < 0.05) and self esteem (β = .341, t = 3.267, p < 0.05). This implies that social networking greatly have a positive impact on the development of self esteem, emotion, feeling and how adolescents with hearing impairment relates and share information about themselves to other via the online interactive medium. More so, the result showed that social networking have more positive influence on the emotional intelligence of the participant. Probably because they take their time to think both inductively and deductively before they respond to issue on the social networks. However, social networking negatively correlates with loneliness among adolescents with hearing impairment.

Table 4. Differences between male and female adolescents with hearing impairment in their use of social networking sites.

Gender	N	Mean ($\overline{X}$)	Std. Dev	df	T	Sig	Remark
Male	68	22.4265	5.22427	124	0.796	0.428	NS
Female	58	21.6552	5.64304				

Hypothesis 4: There is no significant difference in the use of social network among male and female adolescents with hearing impairment.

Table 4 revealed the differences between male ($\overline{X}$ = 22.4265) and female ($\overline{X}$ = 21.6552) adolescents with hearing impairment in their use of social network and the difference is shown to be insignificant (t = 0.796; df = 124; p > 0.05). This implies that gender difference among adolescents with hearing impairment has no influence in the use of social networks.

DISCUSSION

Research question 1 investigated the significant relationship that exists between the use of social network, emotional intelligence, loneliness and self esteem among adolescents with hearing impairment. The finding revealed a positive and significant relationship only between social networking, emotional intelligence and self esteem while there was negative and insignificant correlation between social networking and loneliness. In other words, this implies that the use of social networks influence the emotion, the way of reasoning and it influence the way persons with hearing impairment feel about themselves while communicating with online friends. However, the use of social network does not necessarily mean that adolescents with hearing impairment feel lonely and there resolve for online interaction. The finding corroborates the assertion of Bat-Chava (1993), Valkenburg et al. (2006), Ellison et al. (2007), Pempek et al. (2009), Kalpidou et al. (2011), Oyewumi and Ibitoye (2013) who all noted that social capital, support and social connectedness have a significant influence on the psyche of persons with hearing disability. In other words, adolescents with hearing impairment use social network to build and sustain relationship while they build their self esteem and feel good about themselves. Ellison et al. (2007) as well as Oyewumi and Ibitoye (2013) stated that social networking expand users' horizon of expressing feelings and emotions with a degree of influence on the self esteem of young adults. The finding of this study, however, negates the assertion of Kraut et al. (1998) who both stated that internet use is associated with various degrees of loneliness, depression and stress.

Research question 2 investigated the significant joint relationship between the use of social network and psychological adjustment among adolescents with hearing impairment. The finding revealed that there is a joint relationship between social networking and psychological adjustment among adolescents with hearing impairment. This implies that adolescents with hearing impairment may turn to use social networking sites in order to boost their self esteem, emotions and to avoid being lonely without having anyone to talk or chat with. This finding agrees with the findings of Kraut et al. (1998), Bargh and McKenna (2004), Valkenberg et al. (2006), Ellison et al. (2007), Steinfield, Ellison and Lampe (2008), Kalpidou et al. (2011) as well as Szwedo et al. (2012) who posted that association between online communication and psychological adjustment but it may differ substantially depending on the initial social functioning of young individuals. Similarly, Ando and Sakamoto (2008) perceived that less physically attractive youths who have large online friends predicted decrease in feeling of social anxiety and self concept.

Table 3 revealed the relative contribution of social networking on emotional intelligence, loneliness and self esteem to adolescents with hearing impairment. The result showed that social networking greatly have a positive influence on the development of self esteem, emotions, feelings and how adolescents with hearing impairment relates and share information about themselves to other via the online interactive medium such as www.facebook.com, www.2go.com, www.whataspp.com, www.skype.com, www.twitter.com and many others. More so, the result showed that social networking have more positive influence on the emotional intelligence of the participant. Probably because they take their time to think both inductively and deductively before they respond to issue on the social networks. However, social networking negatively correlates with loneliness among adolescents with hearing impairment. This finding supports Bat-Chava (1993), Kraut et al. (1998), Mayer et al. (1999), Moody (2001), Whang et al. (2003), Valkenberg et al. (2006); Steinfield et al. (2008), Asuzu (2008), Pempek et al. (2009) and Youssef and Youssef (2011) who all reported that the advent of online interactive media have a great impact on the inter and intra personal relationships. In fact, Youssef and Youssef (2011) remarked that technological changes, associated with the Internet are currently in a sporadic increase and it has a great impact on social interactions and the ways in which individuals interact with each other and build their social capital. Currently, the Internet is a platform of expression of capabilities and competencies that are not possible in real life. As a result, Valkenberg et al. (2006)

and Steinfield et al. (2008) observed that persons with or without hearing impairment and therefore, young adults are able to exist either in visible or invisible forms, with their own attributes (names etc.), or create new personalities with a huge implication on inter- and intra-personal relationships, and modifications in the depth of expressing emotions.

Table 4 revealed that there is no significant difference in the use of social networking sites among adolescents with hearing impairment based on gender. This finding therefore corroborates the findings of Bowe (2002), Power and Power (2004), Pilling and Barrett (2007), Hinduja and Patchin (2007), and Oyewumi and Ibitoye (2013) who all posited that irrespective of disabling conditions and gender, young adults have found solace in the social media and the use of such media provide them with emotional and cognitive support, enhanced communication, social connection as well as development of appreciable level of social adjustment.

Conclusion

The study has been able to showed the relationship between use of Social Networks and psychological adjustment (using three psychological constructs which are: emotional intelligence, self esteem and loneliness) among adolescents with hearing impairment in Oyo State. Also, the study revealed that gender differences have no influence on the rate at which adolescents with hearing impairment uses and visit Social Networks.

RECOMMENDATIONS

Based on the findings of this study, it is therefore recommended that:

1. Students with hearing impairment should be provided with group assignments and projects in an online environment as this will create moderated open online discussions.
2. The understanding of the self esteem of children with hearing impairment is important to the family; therefore, the school, counselors and social workers should enlighten and counsel the family and the society about the influence of effective communication on their children's self esteem. Counselors, teachers and social workers should educate parents of children with hearing impairment about the various aspects of their child's hearing loss, importance of acceptance, early interventions and communicative ability on the self image, self esteem and emotional intelligence of their wards.
3. Perhaps the most obvious way to achieving higher level of social contact, developing a positive self esteem, having an appreciable level of emotional intelligence and avoiding loneliness among adolescents with hearing

impairment is to meet new friends. To do this, psychologists, social workers, teachers of students with hearing impairment, parents and other family members should assist adolescents with hearing impairment to meet new people and strike up a conversation between adolescents with hearing impairment and other members of the society. These activities will help to boost the self esteem and emotional intelligence of persons with hearing loss while it will eliminate issues of social isolation and facilitate social inclusion.

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