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**Instagram or Finstagram? A survey on self-esteem and need to belong amongst
emerging adults.**

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Declaration

This Thesis is entirely my own work and has not been previously submitted to this or any other third level institution.

Caroline O' Brien

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Abstract

Social Networking sites provide emerging adults with unique opportunities to present favourable versions of the self which satisfies belongingness needs and enhances self-esteem. Instagram is the most popularly used platform amongst emerging adults. This study aimed to investigate if emerging adults who hold duplicitous accounts on Instagram, an Instagram and a Finstagram account, have different levels of self-esteem and need to belong than those who hold only one or no account. 110 participants aged 18-25 years ($M=22$, $SD=2.0$) completed the Rosenberg Self-Esteem Scale (RSE) and the Leary Need to Belong Scale (NTBS) via an online survey. Results revealed no significant difference in the self-esteem and need to belong scores of participants who chose to have only one Instagram account and those who held both an Instagram and a Finstagram account. There was no significant difference found between the self-esteem and need to belong scores of participants who had no Instagram account and those that held accounts. Implications for further research include broadening the sample of participants to include adolescents and considering the privacy controls utilised by Instagram users. Existing theory of self-presentation could be further developed to reflect the unique self-presentation opportunities social networking sites provide.

Key words: self-presentation, self-esteem, need to belong, Instagram, Finstagram

Do self-esteem and need to belong predict the self-presentation choices of emerging adults on the Instagram platform?

In today's society an emerging adult can hardly imagine a time when technology use was not such a ubiquitous part of everyday life. The Economic and Social Research Institute (ESRI) Growing Up in Ireland Key Findings Report (2019) states that almost half of the study's participants, at age 20yrs, spend over three hours on a typical weekday on screen-based activities. Social media use was the predominant reason reported for their internet use. This prevalence of social media use amongst emerging adults suggests that it is an integral part of emerging adults' lives and it is important that cyberpsychology researchers should examine the links between social media use amongst this age group and psychological well-being.

Emerging Adulthood

Arnett (2000) proposed emerging adulthood as the developmental period from late teens to early twenties specifically between ages 18-25 years. Distinct from the period of risk inclined adolescence (Arnett, 1992) it is a time when an individual may have the opportunities to explore life's possibilities and initiate change more than at any other point in their lives (Sussman & Arnett, 2014). Social Networking Sites (SNSs) provide emerging adults with a platform to present these emerging selves by possibly experimenting with different versions of the self over time and gaining feedback which, through likes and shares, may have an impact on self-esteem and on belongingness.

Social Networking Sites (SNSs)

SNSs are described by Kuss and Griffiths (2011) as virtual communities. Within these communities users can create and curate profiles which allow them to interact with other users. Global tracking of social media use has revealed exponential growth in the popularity of SNSs. Reported usage of at least one SNS amongst adults in the United States had grown from 5% in 2005 to 69% in 2018 (Pew, 2018). Young adults in the age category 18-29yrs exhibit the highest adoption of social media use with 88% of this group using at least one social networking site. Instagram is the preferred

platform amongst young adults and nearly half the screen minutes spent on Instagram is generated by young adults in the 18-24yrs age group (UKOM, 2018) In Ireland, a Wolfgang Digital (2018) survey of 1000 people revealed 41.03% of respondents in the 18-34yrs category reported preferring Instagram over other social media networks.

Self-presentation

Self-presentation is defined as the display of behaviour individuals use to present a tactical image of themselves to others (Leary & Allen, 2011). As Facebook remains ahead of the competition in terms of total numbers of users (Pew, 2018) it is not surprising that much previous psychological research of online self-presentation has concentrated on the Facebook platform (Alhabash & Ma, 2017; Seidman, 2013).

Self-esteem

Intrinsically linked with self-presentation is self-esteem. Originally described by Rosenberg (1965) self-esteem refers to an individual's overall evaluation of self-worth which can vary in part from high to low and also vary in part from the external evaluations of others. The Instagram platform offers copious opportunity to emerging adult users to seek validation of self-esteem from other users and the question of whether self-esteem can predict self-presentation on Instagram is sparsely answered in the existing literature. Attempts to seek validation of self-esteem may be influenced by users need to belong.

Need to belong

Baumeister and Leary (1995) proposed a belongingness hypothesis that the need to belong is a fundamental human drive to form and maintain interpersonal relationships which are positive, lasting and significant. SNSs like Instagram can provide emerging adults with an opportunity to form these relationships and find others with similar viewpoints and interests.

Instagram and Finstagram

Instagram is a free photo and video sharing app optimised for mobile phone use. Users create an account which they can then use to share photos and videos with their followers or a select group of friends. Instagram has a number of features which allow users to engage in curated self-presentation, i.e. filters and image editing. Unlike Facebook Instagram permits users to have multiple accounts and to toggle between these dual profiles within the app. While this feature may be commonly used by influencers to display advertising content publically, while also maintaining a private account, it has also led to the rise of Finstagram accounts amongst users.

Finstagram a compound word of the words fake and Instagram is an account where users post content to a smaller select group of followers. Importantly, the 'fake' refers not to an attempt to deceive the intended viewing audience but rather to the fact that the account is held under a pseudonym (Duffy & Chan, 2019).

Instagram like other SNSs may fulfil emerging adults' self-presentational needs through opportunity to strategically manage the self (Meeus et al., 2019). Emerging adults may use multiple accounts across the same platform to present different aspects of the self. Curated social norm conforming self-presentation may take place on one account while real self-presentation may take place on another account within the same social networking site.

Literature Review

Social psychologists have long recognised the process of impression management. Goffman (1959) proposed that the way in which individuals present themselves is involved in the development of self. Individuals develop a sense of selves through the self they present to others and may present 'front stage' and 'back stage' behaviours depending on the intended audience and social situation. This controllability of self-presentation traverses users' offline and online worlds and Instagram may provide emerging adults with options to curate, manipulate and limit how and to whom they present. SNS users may attempt to integrate their online and

offline identities through what Suler (2002) describes as the integration principle. The Hyperpersonal Model of computer mediated communication (Walther, 1996) suggests online interactions provide individuals with unique opportunities to strategically edit self-presentations online. Users may, to use the terminology of Goffman (1959), partake in 'back stage' behaviours before exhibiting a 'front stage' version of self online. Early research in the field of identifiable online presentation by Zhao et al. (2008) expected that individuals on Facebook present their 'hoped for possible selves' rather than their 'true selves' by engaging in strategic self-presentation. Their findings suggest that being identifiable led individuals to be more likely to present themselves as they would offline. Similarly Ellison et al. (2006) in a study of online dating found that being identifiable online also led to honest self-presentation. However these studies do not consider the role of psycho-social factors, such as self-esteem or the intended audience, on self-presentation.

Michikyan et al., (2014) examined types of self-presentation of emerging adults on Facebook. Participants completed self-report measures of identity state (using the Erikson Psychosocial Stage Inventory), psychosocial well-being (using Rosenberg Self-Esteem Scale) and self-presentation (Self-Presentation on Facebook Questionnaire) on Facebook. The research found that emerging adults reported presenting their real self more than their ideal self or false self on Facebook. Respondents who reported having a coherent sense of self and higher self-esteem presented their real self on Facebook to a greater extent while those with a less coherent sense of self and lower self-esteem reported presenting their false self on Facebook to a greater extent. The research is a step towards understanding the association between self-esteem and self-presentation but the use of self-report measures and a sample of college students are limitations of the study. Michikyan et al., (2014) assume that the participants hold only one Facebook account which is a limitation of the research and represents a gap in the literature on self-presentation on SNSs.

Meeus et al. (2019) studied the role of social media in building self-esteem of younger adolescents (9-14yrs). Results suggest that self-presentation on social media is positively related to pre and early adolescents' self-esteem via their perceived

online popularity. Posting content was found to generate perceived positive appraisal which was beneficial to self-esteem but also generated an increased dependence on social approval which is related to decreased self-esteem. While the study relied on self-reported measures and examined perceived popularity rather than a measure of 'likes' received on the platform it does suggest that other-generated feedback may be involved in the relationship between SNS use and self-esteem.

The role of other-generated feedback is considered by Manago et al. (2008) who found that SNSs provide an avenue for emerging adults to realize their possible self through engaging in social comparison and presenting idealized aspects of the self they wish to become. Social comparison on social media is in turn influenced by an individual's personality characteristics, such as self-esteem (Lee, 2014). Other-focused SNS use results in negative self-evaluation and lower self-esteem, conversely, if individuals focus on themselves they undergo self-affirmation and are reminded of the positive aspects of their own lives, generating a boost in self-esteem (Vogel & Rose, 2014). Mehdizadeh (2010) found that individuals with low self-esteem engaged in self-promotional content on SNSs more than those with high self-esteem, this gains positive feedback which in turn may provide them with an effective mechanism for enhancing their self-esteem. Acceptance and positive feedback from peers through SNS use may provide adolescents with a 'perception of worthiness' as described in Rosenberg's (1965) definition of self-esteem.

Mackson et al., (2019) studied the association between psychological well-being and Instagram use by comparing individuals who had Instagram accounts with those who did not. Results revealed that participants who use Instagram had higher levels of self-esteem than those who did not. The research does not consider the possibility that Instagram users may have multiple accounts and that self-esteem levels of users may vary depending on type of Instagram account held and intended audience. Privacy controls which SNS users employ were not considered. Nardis & Panek (2019) analysis of Instagram users' privacy settings revealed users with low self-esteem were more likely to have public profiles as a possible way to increase relationships and belongingness. Intended audience also has an impact on an individuals' sense of belonging (Keep & Amon, 2017).

The social need to belong was found to be a determining factor of Facebook use (Nadkarni & Hoffman, 2012). Individuals may present versions of themselves on SNSs which enhance self-esteem and meet a need to belong through the feedback of others. Gangadharbatla (2008) found that need to belong and collective self-esteem influence attitude towards SNSs with individuals who had a higher need to belong tending to be more willing to join SNSs. Need to belong was measured using the Need to Belong Scale (2013). The findings of the study may help explain why individuals in the age range 18-30 are heavy users of SNSs, however limitations of the study include the sample of college students and prediction of willingness to join a SNS amongst a sample which had 90% existing membership of SNSs determine Facebook use. Ukom (2018) reports that emerging adults spend an average of 330 minutes per month using Instagram. Users in this category are digital natives which may account for their heavy social media use however, within this age group differences in self-esteem and need to belong may determine Instagram self-presentation choices. Individuals with high levels of need to belong engage in more authentic self-presentation (Wang et al. 2018) Perhaps, individuals employ duplicitous accounts of an Instagram account and a Finstagram account to fuel these needs by presenting the self in different ways, this is a consideration of the current research.

Unlike main Instagram accounts where there are unspoken rules about curated, filtered content which may present the ideal self described by Sheldon and Bryant (2016), is it possible that Finstagram accounts provide users with an avenue for presentation of the real self to a select group of trusted friends? Kang & Wei (2018) suggest that individuals maintain Instagram and Finstagram accounts to satisfy different types of needs. Individuals are driven by a fundamental need to express different identities. In the case of Instagram a social validation need is met by the broad social network audience and in the case of Finstagram a belonging need is met by a more select audience of friends which the individual wishes to entertain with humorous and silly content. Duffy & Chan (2019) concluded that imagined surveillance on Instagram leads young people to circumvent this surveillance by creating secondary Instagram accounts which are not shared publically by the user and allow the user to present the real self. These private Finstagram accounts are

preferred over primary Instagram accounts and are considered to be free from social comparison. (Throuvala, Griffiths, Rennoldson & Kuss, 2019).

Proposed Study

Commonly explored themes of previous research on social media include the investigation of the link between SNS use and psychosocial wellbeing, self-presentation and identity construction (Valkenburg et al., 2006; Yang et al., 2017), but there is limited research into the unique opportunity Instagram presents users who wish to manipulate their self-presentation and how this self-presentation may be predicted by psychological constructs such as self-esteem and need to belong. Previous research considers that individuals can engage in strategic multi-faceted self-presentation but does not examine how emerging adults may choose to present different versions of the self, on different accounts, within a social networking platform or consider if differences in self-esteem and need to belong predict this self-presentation.

Given the methodological and theoretical limitations of previous research the current study examines if it is possible that through the use of multiple SNS accounts on the Instagram platform, i.e. an Instagram account and a Finstagram account, users present a 'front stage' self on one account and a 'back stage' self on another account and that differences in self-esteem and need to belong may exist between individuals who hold different types on Instagram account.

Research questions

RQ1. Does presenting an Instagram or Finstagram account on Instagram effect self-esteem of emerging adults?

RQ2. Does presenting an Instagram or Finstagram account on Instagram effect need to belong of emerging adults?

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Hypotheses

H1. There will be a difference in self-esteem of emerging adults based on Instagram account type held.

H2. There will be a difference in need to belong of emerging adults based on Instagram account type held.

Method

Design

A fixed quantitative between groups design was used to conduct an online survey. This design enabled the examination of the differences between two or more groups (Mc Millan, 2015). The independent variable was the Instagram account type held by the participant with 3 levels: Instagram account, Instagram and Finstagram account, no account. The dependent variables were participants' self-esteem scores and their need to belong scores. The data was analysed using descriptive and inferential statistics to investigate whether participants' self-esteem and need to belong scores differed based on type of Instagram account held.

Participants

Convenience and purposeful sampling was used to recruit participants through a link to Google forms (Appendix A) shared on social media channels, by word of mouth and on a Psychological Research Site. Participants were treated in accordance with the Psychological Society of Ireland (2019) Code of Professional Ethics. Ethical approval for the study was granted by The Department of Technology and Psychology Ethics committee. A total of 110 participants were included in this research, n= 39 males, n=71 females, n= 0 prefer to self-identify. Emerging adults (18-25yrs) were the intended sample (M=22, SD=2.0).

Materials

An online survey was administered via a link to a Google form. Participants accessed the survey link using a device which provided internet access e.g. a mobile phone, tablet or laptop. The Google form opened with the title of the study followed by an information sheet which outlined the aims of the study, what participation involved, ethical rights of the participant related to collection of data and withdrawal from the study. A consent form (Appendix B) followed along with demographic questions on age and gender. Participants completed the ten item Rosenberg Self-

Esteem Questionnaire (RSES) (Appendix D) and the ten item Need to Belong Scale (NTBS) (Appendix E).

Rosenberg's Self-Esteem Scale (1989) is a ten item Likert scale with items answered on a four point scale from strongly agree to strongly disagree. Items 1,2,4,6,7: Strongly Agree=3, Agree=2, Disagree=1, and Strongly Disagree=0. Items 3,5,8,9,10: Strongly Agree=0, Agree=1, Disagree=2, and Strongly Disagree=3. A sample item is as follows: "I feel I have a number of good qualities." The RSES has high reliability, test-retest correlations are typically in the range ($\alpha=.82$) to ($\alpha=.88$) (Blascovich & Tomaka. 1993). Schmitt and Allik (2005) in a study exploring the universal and cultural specific features of Global Self-Esteem in 53 nations established that the mean internal reliability (Cronbach's alpha) of the scale across the 53 nations studied was substantial ($\alpha=.81$).

The Need to Belong Scale (NTBS) is a ten item Likert scale with items answered on a five point scale from strongly disagree to strongly agree. Items 2, 4, 5, 6, 8, 9, 10 are scored Strongly Disagree=1, Moderately Disagree=2, Neither Agree nor Disagree=3, Moderately Agree=4, Strongly Agree=5. Items 1, 3, 7 are Strongly Disagree=5, Moderately Disagree=4, Neither Agree nor Disagree=3, Moderately Agree=2, Strongly Agree=1. A sample item is as follows: "I seldom worry about whether other people care about me." Leary et al., (2013) found that the NTBS possesses acceptable inter item reliability with Cronbach's alpha coefficient ranging from ($\alpha= .78$ to $\alpha= .87$) with a median ($\alpha=.81$).

Pilot

A Pilot test was conducted amongst a group of students. Any concerns raised were addressed.

Procedure

A link to the Google form was shared by the researcher on WhatsApp, Twitter, Instagram and Facebook and on the psychology research website run by Hanover College, Indiana, USA. <https://psych.hanover.edu/research/exponnet.html> Participants were asked to share the Google form link with friends. The Google form

link was also shared with undergraduate psychology students by IADT lecturers. No course credit was offered in return for completion of the survey. Participants accessed the Google Form link using their chosen online device. Participants were presented with an information sheet and then asked to indicate their informed consent before outlining demographic data. Participants then indicated if they had no Instagram account, an Instagram account or an Instagram and Finstagram account (Appendix C) and completing the NTBS and RSES. Finally, participants were presented with a debrief section which thanked them and provided the researchers contact details and the contact details of relevant support agencies (Appendix F).

Results

Research Design

The study employed a fixed quantitative between groups design and an online survey. An online survey was appropriate because a survey can provide information about the attitudes, beliefs and motives of respondents which can be generalised to a larger population (Robson, 2002). Hypothesis one stated that there will be a difference in self-esteem of emerging adults based on Instagram account type held. Hypothesis two stated that there will be a difference in need to belong of emerging adults based on Instagram account type held. The independent variable was the Instagram account type held by the participant with three levels: Instagram account, Instagram and Finstagram account, no Instagram account. There were two dependent variables, participants' self-esteem scores and their need to belong scores. The data was analysed using descriptive statistics and independent t-tests on IBM SPSS Statistics 24 to investigate whether participants' self-esteem and need to belong scores differed based on type of Instagram account.

Descriptive statistics

A total of 110 participants were included in this research. Table 1 shows gender of participants by Instagram type.

Table 1

No. of Participants by Instagram Account Type

Type of account	No Instagram account	Instagram account only	Instagram account and Finstagram account
Total no. of Participants	9	72	16
Male	4	26	9
Female	5	59	7

Participants were required to fall in the age range of 18-25 years of age. The total sample had a mean age of 22 ($M=22$, $SD=2.0$). Table 2 shows the mean age and standard deviation of participants by Instagram account type.

Table 2

Mean Age and Standard Deviation of Participants by Instagram Account Type

Type of account	No Instagram account	Instagram account only	Instagram account and Finstagram account
M	22.0	21.8	21.7
SD	1.6	2.1	1.8

The RSE scale ranges from 0-30, with 30 indicating the highest possible score. Table 3 shows the mean self-esteem score and standard deviation of participants by Instagram account type.

Table 3

Mean self-esteem Scores and Standard Deviation of participants

Type of account	No Instagram account	Instagram account only	Instagram account and Finstagram account
M	16.33	18.18	18.69
SD	6.02	4.6	3.7

The NTB scale ranges from 5-50, with 50 indicating the highest possible score. Table 4 shows the mean need to belong score and standard deviation of participants by Instagram account type.

Table 4*Mean need to belong score and Standard Deviation of participants*

Type of account	No Instagram account	Instagram account only	Instagram account and Finstagram account
M	34.11	34.54	34.06
SD	5.67	6.20	5.74

Inferential statistics***Hypothesis 1***

Participants were divided into 2 groups based on Instagram account only and no Instagram account. An independent-samples t-test was conducted to compare mean self-esteem score as measured by Rosenberg's Self-Esteem Scale (Rosenberg, 1989) between the two groups. There was no significant difference in scores for Instagram account only ($M = 18.8$, $SD = 4.6$) and No Instagram account ($M = 16.33$, $SD = 6.02$; $t(92) = 1.12$, $p = 0.27$, two-tailed). The magnitude of the differences in the means (mean difference = 1.84, 95% CI: -1.44 to 5.13) was small (eta squared = 0.3) (Appendix G).

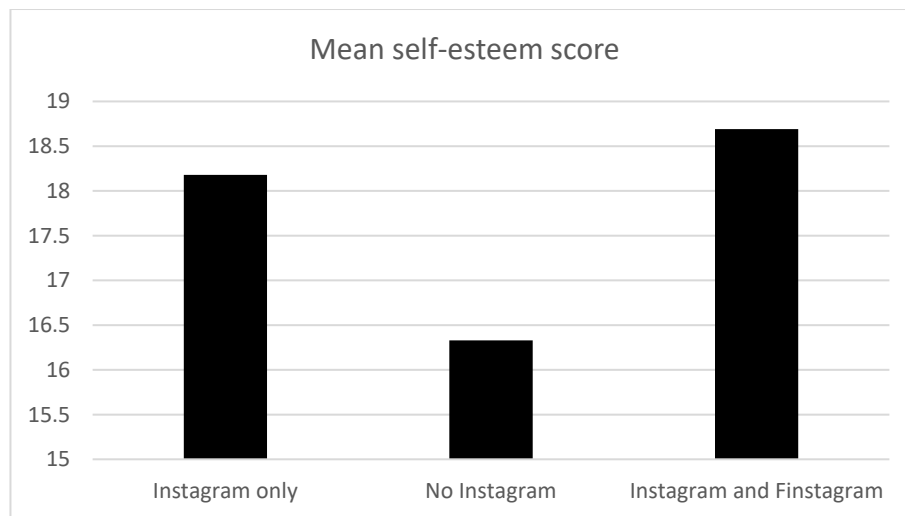
Participants were divided into 2 groups based on Instagram account only and Instagram and Finstagram account. An independent samples t-test was conducted to compare mean self-esteem score as measured by Rosenberg's Self-Esteem Scale (Rosenberg, 1989) between the two groups. There was no significant difference in scores for Instagram account only ($M = 18.8$, $SD = 4.6$) and Instagram and Finstagram account ($M = 18.69$, $SD = 3.7$; $t(99) = -.421$, $p = .674$, two-tailed). The magnitude of the differences in the means (mean difference = -.511, 95% CI: -2.91 to 1.89) was small (eta squared = 0.12) (Appendix G).

Participants were divided into 2 groups based on No Instagram account and Instagram and Finstagram account. An independent samples t-test was conducted to compare mean self-esteem scores as measured by Rosenberg's Self-Esteem Scale

(Rosenberg, 1989) between the two groups. There was no significant difference in scores for no Instagram account ($M = 16.33$, $SD = 6.02$) and Instagram and Finstagram account ($M = 18.69$, $SD = 3.7$; $t(23)=1.22$, $p = .236$, two-tailed). The magnitude of the differences in the means (mean difference= 2.35 , 95% CI: -1.65 to 6.35) was small (eta squared = 0.48) (Appendix G).

Figure 1

Mean self-esteem score by Instagram account type



Hypothesis 2

Participants were divided into 2 groups based Instagram account only and no Instagram account. An independent-samples t-test was conducted to compare mean need to belong score as measured by the Need To Belong Scale (Leary et al. 2013) between the two groups. There was no significant difference in scores for Instagram account only ($M = 34.54$, $SD = 6.20$) and No Instagram account ($M = 34.11$, $SD = 5.67$; $t(92) = .199$, $p = .843$, two-tailed). The magnitude of the differences in the means (mean difference = 0.43 , 95% CI: -3.86 to 4.71) was small (eta squared = 0.07) (Appendix G).

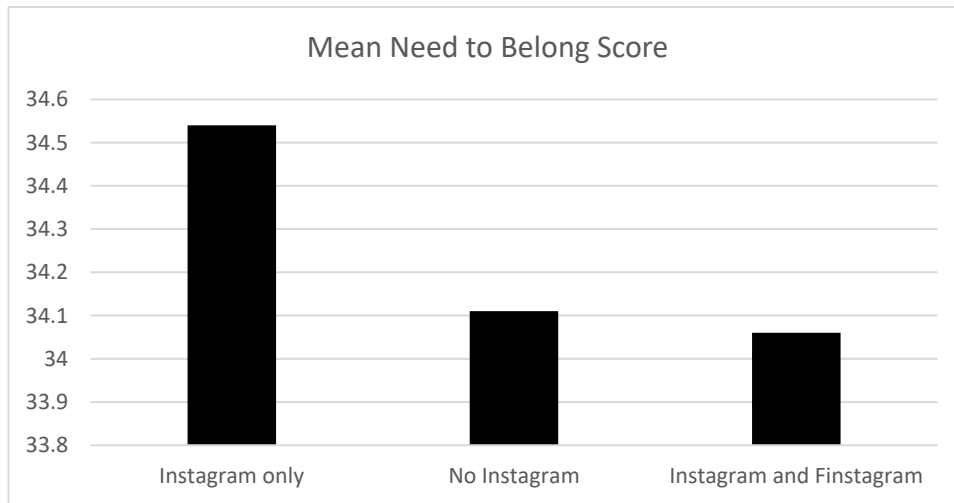
Participants were divided into 2 groups based on Instagram account only and Instagram and Finstagram account. An independent-samples t-test was conducted to compare mean need to belong score as measured by the Need To Belong Scale (Leary et al. 2013) between the two groups. There was no significant difference in scores for

Instagram account only (M = 34.54 , SD = 6.2) and Instagram and Finstagram account (M = 34.06 , SD = 5.74 ; t (99) = .286 , p = .775 , two-tailed). The magnitude of the differences in the means (mean difference = .48, 95% CI: -2.84 to 3.80) was small (eta squared = 0.08) (Appendix G).

Participants were divided into 2 groups based on No Instagram account and Instagram and Finstagram account. An independent-samples t-test was conducted to compare mean need to belong score as measured by the Need To Belong Scale (Leary et al. 2013) between the two groups. There was no significant difference in scores for no Instagram account (M =34.11, SD =5.67) and Instagram and Finstagram account (M =34.06 , SD =5.74 ; t(23)= -.020, p= .984 ., two-tailed). The magnitude of the differences in the means (mean difference=-.049, 95% CI: -4.98 to 4.87) was small (eta squared = .008) (Appendix G).

Figure 2

Mean need to belong score by Instagram type



Discussion

This study aimed to investigate if there are differences in the self-esteem and need to belong of emerging adults based on self-presentation account choice on Instagram. Hypothesis one, that there will be a difference in self-esteem of emerging adults based on Instagram account type held, was not supported. Hypothesis two, that there will be a difference in need to belong of emerging adults based on Instagram account type held, was not supported.

Previous research of Finstagram accounts has revealed that those who hold a Finstagram account use this account to display their 'real selves' more than on their primary Instagram account or use this account to display a real version of the self not open to the same criticism and scrutiny of a main Instagram account (Kang & Wei, 2018). The results of the current study are inconsistent with previous research on self-presentation which consistently reports an association between authentic self-presentation and increased levels of self-esteem (Twomey & O'Reilly, 2017). While social media use enhances belongingness, which in turn enhances self-esteem (Gonzales and Hancock, 2011) those who hold Finstagram and Instagram accounts did not have differing levels of need to belong than those who hold an Instagram account only or do not hold any Instagram account.

A comparison of the mean self-esteem scores and the mean need to belong scores of emerging adults who held an Instagram account and those who held no Instagram account revealed no significant difference. This finding is inconsistent with previous research by Mackson et al. (2019) which examined the association between Instagram and psychological well-being and found a significant difference in level of self-esteem between the participants who had an Instagram account and those who did not. Participants who had an Instagram account reported higher self-esteem than those who did not hold an Instagram account and were also significantly less lonely than those who did not have an Instagram account. The participants in Mackson et al. (2019) study were aged between 18 and 48 years ($M=25.16$, $SD=5.64$) while the participants in the current study were aged between 18 and 25 years ($M=22$, $SD=2.0$). The lower mean age of the current study's participants may have implications for the self-esteem and need to belong scores of the two Instagram account groups as

perhaps at this critical period of identity construction (Arnett, 2004) there is not a lot of variance between individuals in such a narrow age sample of the population.

Previous research by Wang et al. (2018) has suggested that those with high levels of need to belong engage in more authentic self-presentation. The maintenance of a Finstagram account has been found to provide users with a way of projecting the 'real' or 'authentic' self which is not subject to the cultural norms of a main Instagram account, as it is presented to only a select group of friends (Duffy and Chan, 2019). A comparison of the mean self-esteem scores and the mean need to belong scores of the Instagram only group and the Instagram and Finstagram group revealed no significant difference. This was contrary to expectation that individuals who hold both an Instagram and Finstagram account would have differing levels of self-esteem and need to belong than those in the Instagram only group because through a Finstagram account they have a channel to engage in more authentic self-presentation. Authentic self-presentation has been found previously to relate to higher levels of self-esteem (Michikyan et al., 2014; Yang, 2017). One possible explanation for this is that emerging adults may have an increased awareness of privacy controls on Instagram (Nardis & Panek, 2019) than younger users and use this knowledge to circumvent the need for a Finstagram account. Through privacy controls those in the Instagram only group may have limited their followers and can engage in authentic self presentation to a smaller select audience similar to the audience of a Finstagram. Inclusion of a question about the number of followers and relationship participants had with followers on each account may have provided further insight into the privacy controls individuals used on the different accounts.

Finally, a comparison of the mean self-esteem scores and the mean need to belong scores of the group who had no Instagram account and those who held both an Instagram and a Finstagram account were conducted. Again this was inconsistent with expectations that individuals who use social media benefit from positive consequences such as enhanced self-esteem (Valkenburg et al. 2006) and have belongingness needs met.

Theoretical Implications

Existing theories of self-presentation and computer mediated communication may not have the necessary complexity to explain multiple representations of the self across the Instagram platform. However, Goffman's (1959) proposal that individuals present 'front stage' and 'back stage' versions of the self may help to explain why some individuals hold an Instagram account, which allows them to engage in curated front stage self-presentation to a wide audience, and also choose to hold a secondary Finstagram account which has a smaller audience and allows users to possibly present a more real 'back stage' version of the self. The audience of the account is an important consideration as previous research has suggested that the significance of an individual's audience has an impact on the individuals' sense of belonging (Keep & Amon, 2017) and self-esteem (Meeus et al. 2019) and as previously outlined, need to belong and authentic self-presentation are linked. The maintenance of an Instagram and a Finstagram may also be explained by what Suler (2002) describes as the integration principle. It may represent the integration of the individual's online life displayed by curated self-presentation on the Instagram account and their offline life displayed by real self-presentation on the Finstagram account. This integration leads to a whole which may be the "hallmark of mental health" (Suler, 2002, p.456). This could be further investigated through a qualitative study questioning individual motives for holding duplicitous accounts.

Strengths of the current study

The design of the study was appropriate as the study is theory driven and is concerned with the properties and general tendencies of a group (Robson, 2002). The format of an online questionnaire was appropriate to the target sample of emerging adults and allowed for convenience and purposeful sampling. Sharing of the Google form link on social media channels was also a successful strategy as again this reached the intended sample of participants and by default these participants were likely to have an Instagram account. The online questionnaire was easily accessed and could be completed on any device, it took less than 5 minutes to complete and consequently was not likely to lead to participant fatigue. The study was shared on a

number of research websites which allowed for international participation and a cross-cultural sample. The Rosenberg self-esteem scale (RSE) and The Need to belong scale (NTBS) have been previously shown to be valid and reliable measures.

Limitations of the current study

The study used a predominantly college student sample with a majority of female participants which limits generalizability. Instagram is more often used by women (Sheldon & Bryant, 2016; Alhabash & Ma, 2017) and the role of gender was not considered in this study. There was an uneven sample size in the three groups of no Instagram, Instagram only and Instagram and Finstagram. It was difficult to recruit participants to the no Instagram group probably because of the propensity of emerging adults to use social media, particularly Instagram. It was also difficult to recruit participants to the Instagram and Finstagram group, a more generalised sample beyond college students may have led to more participants in this group. This recruitment difficulty was contrary to expectations as a previous study by Duffy & Chan (2019) on emerging adults and Instagram reported that 13 of the 28 interviewees in the study held both an Instagram and a Finstagram. The current research did not contain a qualitative element, this would have allowed the researcher to gain further insight into how and why multiple accounts are used in relation to self-presentation, self-esteem and need to belong. Self-presentation was measured by type of Instagram account rather than through the use of a psychometric instrument, this is also a limitation of the study.

Practical Implications

The research question is novel when framed in terms of existing research and the current study has many practical implications for future research. Future researchers should consider the inclusion of a measure of self-presentation such as Fullwood (2016) Presentation of Online Self Scale (POSS) to investigate the type of online self-presentation participants engaged in across the three groups of Instagram type. Future research should also consider the age group of the sample. A sample of adolescents (the digital age of consent for Instagram use in Ireland is 13) may be

more likely to yield participants in the Instagram and Finstagram group as this age group are more likely to engage in risk-taking behaviours (Arnett, 1992) which they may wish to present on a Finstagram account and hide from a wider critical Instagram audience. The role of gender should also be included in future studies. Metadata collection of participant Instagram usage and number of followers on each account should also be included in future research. A qualitative component of future research would be very beneficial to investigate self-presentation motivations for Instagram and Finstagram use amongst participants and examine if there is a link between these motivations and psychological well-being. These motivations for real self-presentation could be considered in terms of existing theory on offline self presentation and identity (Goffman, 1959; Leary et al., 2011) and possibly explained by contemporary cyberpsychology theory on self-presentation (Walther, 1996).

Conclusion

Existing theoretical perspectives on self-presentation may not yet have considered that individuals may use multiple social media accounts to present multifaceted versions of the self. Much of the previous research of self-presentation on social networking sites assumes that individuals strategically manage the impression others form of them online by curating content posted to portray a version of the self which, as Zhao et al. (2008) suggest, is actually representative of the real self, but only through one account on a platform. The current research contributes to the field of study by raising the question of whether emerging adults have manipulated the permissions granted by Instagram to hold more than one account to their psychological advantage by presenting the self in different ways on different Instagram accounts. It is possible that real self presentation for some individuals is defined by the account settings on the Instagram platform and this should be a consideration for theorists and further research. The prevalence of Instagram use amongst emerging adults suggests that there are social and psychological gains for individuals in this category and understanding the contribution that self-presentation through Instagram use makes to the psychological well-being of emerging adults warrants further investigation. Future research of self-presentation online should

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consider integrating measures of psychological well-being, transient identity construction from adolescence to emerging adulthood and increased awareness of privacy amongst digital natives from adolescence to emerging adulthood.

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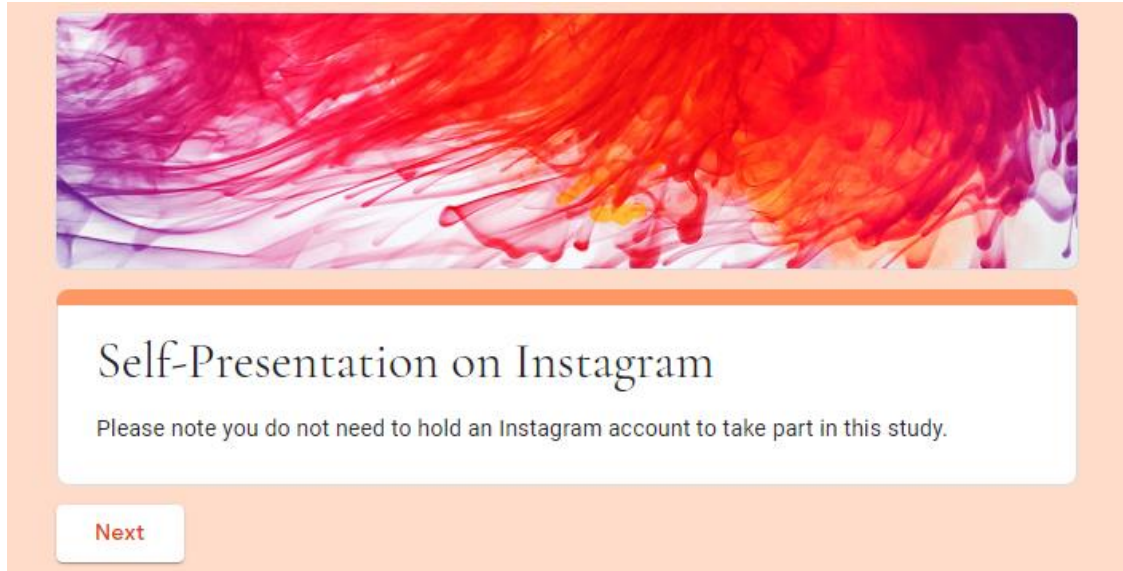
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Appendix A

Google form link and landing page

Link:



Appendix B

Informed Consent

PURPOSE OF THE RESEARCH

Instagram has over 1 billion monthly active users. Nearly half of the screen minutes spent on the Instagram platform is generated by young adults. This research looks at how emerging adults age 18-25 use different types of Instagram account for online self-presentation.

INVITATION

You are being invited to consider taking part in this research study on the link between self-presentation on Instagram and self-esteem and need to belong. This project is being undertaken by Caroline O' Brien, a 2nd year MSc. Cyberpsychology student at IADT.

Before you decide whether or not you wish to take part, it is important for you to understand why this research is being done and what it will involve. Please take time to read this information carefully and discuss it with friends and relatives if you wish. Please ask if there is anything that is unclear or if you would like more information.

DO I HAVE TO TAKE PART

You are free to decide whether you wish to take part or not. You may indicate whether or not you consent to take part in the consent box below.

If you are an IADT student choosing to either take part or not take part in the study will have no impact on your marks, assessments or future studies.

IF I TAKE PART WHAT DO I HAVE TO DO

The study will take approximately five minutes to complete.

You will be asked to indicate if you have an Instagram account and identify the type of Instagram account or accounts you have using the following definitions.

Instagram Account: An Instagram account is an account on the Instagram platform used to share photos and content with family, friends and followers.

Finstagram Account: A Finstagram account is a secondary Instagram account used to share photos and content with only a select group of people who you wish to view the content.

You will then have to complete two questionnaires. The questionnaires measure self-esteem and need to belong.

WHAT ARE THE BENEFITS (IF ANY) OF TAKING PART?

You will assist a MSc. Cyberpsychology student to complete their thesis.

WHAT ARE THE DISADVANTAGES AND RISKS (IF ANY) OF TAKING PART?

There should be no disadvantage or risk to the participant by taking part. You may feel a little uncomfortable answering personal survey questions but in the event that you do feel any discomfort after participation details for support agencies will be provided at the end of the survey.

HOW WILL INFORMATION ABOUT ME BE USED?

The responses to the study will be used as raw data for the proposed study.

WHO WILL HAVE ACCESS TO INFORMATION ABOUT ME?

You will be asked to create an anonymous code which the researcher will only use in the event that you wish to withdraw from the study.

Your survey answers will be sent to a link at Google Docs where data will be stored in a password protected electronic format. Google Docs does not collect identifying information such as your name, email address, or IP address.

Data will be retained by the researcher for at least one year.

Data will be deleted after a period of one year has passed if the data is not needed for any further publication, most academic journals require data to be kept for up to 5 years at which point the data will be deleted.

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WHAT WILL HAPPEN TO THE RESULTS OF THE SURVEY?

N00182569

The results of the study will be reported in the results section of the researcher's thesis which is submitted as a course requirement of the MSc. Cyberpsychology. Results will also be discussed in the discussion section of the thesis. The results may be presented at future academic presentations or conferences.

WHO HAS REVIEWED THE STUDY?

This study has been approved by the Department of Technology and Psychology Ethics Committee (DTPEC).

WHAT IF THERE IS A PROBLEM?

If you have a concern about any aspect of this study, you may wish to speak to the researcher or their supervisor who will do their best to answer your questions. Please see contact information below.

CONTACT FOR FURTHER INFORMATION

Researcher: Caroline O'Brien. email: N00182569@student.iadt.ie

Supervisor: Dr. Nicola Fox-Hamilton. email: Nicola.Fox-Hamilton@iadt.ie

Thank you for taking the time to read the information sheet.

DATE

07/02/2020

Appendix C

Definitions of accounts presented to participants

An Instagram account is an account on the Instagram platform used to share photos and content with family, friends and followers. Do you have an Instagram account?

Yes

No

A Finstagram account is a secondary Instagram account used to share photos and content with only a select group of people who you wish to view the content. Do you have an Instagram and a Finstagram account?

Yes

No

Appendix D

Rosenberg Self-Esteem scale (RSE)

Instructions

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

		strongly agree	agree	disagree	strongly disagree
1.	I feel that I am a person of worth, at least on an equal plane with others.				
2.	I feel that I have a number of good qualities.				
3.	All in all, I am inclined to feel that I am a failure.				
4.	I am able to do things as well as most other people.				
5.	I feel I do not have much to be proud of.				
6.	I take a positive attitude toward myself.				
7.	On the whole, I am satisfied with myself.				
8.	I wish I could have more respect for myself.				
9.	I certainly feel useless at times.				
10.	At times I think I am no good at all.				

Appendix E

Need to belong scale

Need to Belong Scale

(Leary, Kelly, Cottrell, & Schreindorfer, 2005)

Instructions: For each of the statements below, indicate the degree to which you agree or disagree with the statement by writing a number in the space beside the question using the scale below:

- 1 = Strongly disagree
- 2 = Moderately disagree
- 3 = Neither agree nor disagree
- 4 = Moderately agree
- 5 = Strongly agree

- _____ 1. If other people don't seem to accept me, I don't let it bother me.
- _____ 2. I try hard not to do things that will make other people avoid or reject me.
- _____ 3. I seldom worry about whether other people care about me.
- _____ 4. I need to feel that there are people I can turn to in times of need.
- _____ 5. I want other people to accept me.
- _____ 6. I do not like being alone.
- _____ 7. Being apart from my friends for long periods of time does not bother me.
- _____ 8. I have a strong need to belong.
- _____ 9. It bothers me a great deal when I am not included in other people's plans.
- _____ 10. My feelings are easily hurt when I feel that others do not accept me.

Appendix F

Debrief

Thank you very much for taking part in this research. The study in which you just participated was designed to investigate the link between Self-Presentation on Instagram and Self-Esteem and Need to Belong.

If you have any questions about this study or you wish to have your data removed from the study before 21st March 2020, please contact me at the following email address N00182569@student.iadt.ie. Alternatively you may contact my supervisor Dr. Nicola Fox_Hamilton at email: Nicola.Fox-Hamilton@iadt.ie

If you have been affected in any way by the content of this study the organisations listed below may be of assistance to you.

www.samaritans.org

www.pieta.ie

Please feel free to share this survey on your social media with others who may be interested in taking part. The link to the survey is <https://forms.gle/cFwmVHwe1kjTKFYb7>

Appendix G

T-Tests

T-Test

Group Statistics										
	Instagroup	N	Mean	Std. Deviation	Std. Error Mean					
SETSCOREALL	Instagram Only	85	18.1765	4.57003	.49569					
	Instagram & Finsta	16	18.6875	3.70079	.92520					
NTBTSCOREALL	Instagram Only	85	34.5412	6.20398	.67292					
	Instagram & Finsta	16	34.0625	5.74420	1.43605					

Independent Samples Test											
		Levene's Test for Equality of Variances				t-test for Equality of Means				95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
SETSCOREALL	Equal variances assumed	1.335	.251	-.421	99	.674	-.51103	1.21249	-2.91687	1.89482	
	Equal variances not assumed			-.487	24.487	.631	-.51103	1.04962	-2.67506	1.65300	
NTBTSCOREALL	Equal variances assumed	.004	.948	.286	99	.775	.47868	1.67230	-2.83953	3.79688	
	Equal variances not assumed			.302	22.120	.766	.47868	1.58589	-2.80923	3.76658	

T-Test

Group Statistics					
	Instagroup	N	Mean	Std. Deviation	Std. Error Mean
SETSCOREALL	Instagram Only	85	18.1765	4.57003	.49569
	No Instagram	9	16.3333	6.02080	2.00693
NTBTSCOREALL	Instagram Only	85	34.5412	6.20398	.67292
	No Instagram	9	34.1111	5.66667	1.88889

Independent Samples Test											
		Levene's Test for Equality of Variances				t-test for Equality of Means				95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
SETSCOREALL	Equal variances assumed	.946	.333	1.115	92	.268	1.84314	1.65241	-1.43869	5.12496	
	Equal variances not assumed			.892	9.003	.396	1.84314	2.06724	-2.83308	6.51935	
NTBTSCOREALL	Equal variances assumed	.010	.919	.199	92	.843	.43007	2.15900	-3.85789	4.71802	
	Equal variances not assumed			.214	10.144	.834	.43007	2.00517	-4.02916	4.88929	

T-Test

Group Statistics

	Instagroup	N	Mean	Std. Deviation	Std. Error Mean
SETSCOREALL	Instagram & Finsta	16	18.6875	3.70079	.92520
	No Instagram	9	16.3333	6.02080	2.00693
NTBTSCOREALL	Instagram & Finsta	16	34.0625	5.74420	1.43605
	No Instagram	9	34.1111	5.66667	1.88889

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means				95% Confidence Interval of the Difference		
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
SETSCOREALL	Equal variances assumed	2.394	.135	1.217	23	.236	2.35417	1.93383	-1.64627	6.35461
	Equal variances not assumed			1.065	11.485	.309	2.35417	2.20992	-2.48490	7.19323
NTBTSCOREALL	Equal variances assumed	.028	.868	-.020	23	.984	-.04861	2.38223	-4.97663	4.87941
	Equal variances not assumed			-.020	16.908	.984	-.04861	2.37279	-5.05684	4.95962