RELATIONSHIP BETWEEN COMPUTER-MEDIATED COMMUNICATION USAGE AND INTIMACY LEVELS AMONG UNIVERSITY STUDENTS IN MOMBASA COUNTY, KENYA

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Abstract

There is a rapid increase in internet usage among young adults in the world and Kenya is no exception. This is because young adults are in the age group characterized by the attraction and creation of diverse relationships, which also play a role in maintaining those relationships. In addition, recent studies have shown how most university students are in romantic relationships believing that they are not far from marriage life and are the main crowd that uses the CMCs and as result, mental health issues among students have been reported. Hence, this study sought to establish the relationship between Computer-Mediated Communication (CMC) usage and intimacy levels among university students in Mombasa County. The study was supported by Erik Erikson's Psychosocial Theory and Social Exchange Theory developed by George Homans and both theories hold the view that human relationships are defined by the change of behavior. A correlational research design was used in the study. The target population was 9,883 undergraduate students from one public university and one satellite university campus in Mombasa. A sample size of 370 participants was selected using Quota sampling. A pilot study was done on 29 final-year students from Kenyatta University, Mombasa campus. A structured questionnaire was used to collect data. A test-retest method was used to measure the reliability of the instruments, and a computation using SPSS-version 24 for both CMC usage scale and intimacy scale was done to establish Cronbach's reliability coefficient, which was 0.75. Couples Satisfaction Index (CSI), a 32-item scale was designed to assess current intimacy among dating students. Results revealed 49% had stayed in a romantic relationship between 6 to 11 months while only 5% for 3 years and above. Findings also established 52% lived together with their partners while 48% were not; 28% had lived together for 1 and 1.5 years, 19% for 7 to 11 months, the minority 1% had lived together for 2 to 2.5 years while the majority 45% for over 3 years. Analysis from the Pearson correlation test revealed there was a positive correlation between CMC usage and intimacy levels among dating undergraduate students, r (350) = 0.554, P=0.004<0.05, and the mean value was 4.3120 (SD = .37975). The study concludes that there exists a positive relationship between CMC usage and intimacy levels among dating undergraduate students. Based on the results, the study recommended that since there is a strong correlation between CMC usage and intimacy levels among university students, there is a need for the establishment of new policies in universities to regulate CMC usage among the students. Secondly, the study recommends a need for massive provision of counselling services due to the increasing cases of mental health issues, as established in this research, to promote healthy romantic relationships among university students.

Keywords: *computer-mediated communication, intimacy, positive relationship, university students*

Introduction

Technology is part of the human race. It grows with each minute, evolving to serve human needs as they arise. One of these needs is communication and through technology's evolution of electronic communication channels, the world has become a global village. According to Spitzberg (2017), Computer-Mediated Communication CMC is any human communication that occurs through the use of two or more electronic devices. Over time, the term has broadened to cover not only communications that occur via computer-mediated formats but also all forms of text-based

interactions. These communications channels include messaging (Short Message Service [SMS] and instant messaging), posts (texts and pictures) and video calls. All these three categories are accessed through Cellular Services, Facebook, Skype, WhatsApp, Snapchat, Viber, International Maritime Organization (IMO), Twitter, and Instagram among others (Smith & Anderson, 2018). Relationship satisfaction is an interpersonal assessment of positive feeling towards one's partner and attraction to the relationship (Tobore,2020). This simply means that it is the subjective and overall evaluation of one's own relationship hence would play an important role in determining whether the relationship will grow or end. High levels of relationship satisfaction are characterized by high degrees of intimacy, emotional security, trust and communication which leads to the individual being generally satisfied with life. On the other hand, low level of relationship satisfaction leads to unhealthy romantic relationships and has been associated with increased psychological distress over time ((Sorokowski and Groyecka,2021).

As adolescents move to universities and colleges they move from dependency to autonomy where they form new bonds with romantic partners and let go those shared with primary care givers (Stavrianopoulos & Nightingale, 2019). A study done by Griffin and Canevello (2018) in the United States found dating among college students was associated with positive developmental outcomes, including favorable effects on academic performance. Similar findings were revealed in a study conducted at Korean universities (Lee & Chang, 2021) where they were investigating the factors that influence romantic relationship satisfaction of university students. Both studies showed that satisfying romantic relationships were important in university dating and that "healthy young adult dating builds self-sufficiency and self-esteem, practices conflict management and provides opportunities to negotiate trust as well as lessons on how to build, maintain and end relationships" (Stavrianopoulos, 2015; Lee & Chang, 2021).

In Sub-Saharan Africa, most countries have adopted digital technologies to build economies which promote efficient service delivery and development (Carmela and Brunetta,2020). According to Galadanci and Abdullahi (2018) most developing countries have recorded improved communication systems as these technologies allow people to connect within the continent at affordable price. A recent data released by Global System for Mobile Communication (GSMA,2019), indicated that in Africa, there are about 456 million mobile subscribers. The report revealed that 23% of the population are regular mobile internet users, where by the leading country was South Africa with 91%, Ghana came second with 80%, and third was Senegal which was rated at 79% (Taylor & Silver, 2019). Further, Donga & Zindiye (2018) assessed adopting digital marketing and use of mobile phones among university students of South Africa. The study showed that majority of the students were much addicted to using mobile phones and were not necessarily doing mobile marketing but connecting with friends. Similarly, another study that involved young people in the South West Nigeria, Ayandele & Busari (2019) established that smartphone addiction, anxiety and depression were strongly correlated and were highly prevalent.

The usage of CMCs in Kenya has grown over the years with more of the citizens accessing and using phones as the basic electronic channel of communication through both cellular and internet channels. This is highlighted by data released by the Communications Authority of Kenya (CAK) which shows that as of December 2018, the total number of internet subscriptions in Kenya was 45.7 million (CAK, 2019). Majority of the subscribers accessed internet through their mobile phones. Moreover, a survey conducted by SIMElab in 2019 showed that the most active age group on social media in Kenya is between the age of 26-35 (at 49%), whereas those over the age of 46

were the least active. Additionally, the data indicated that WhatsApp (88.6%) and Facebook (88.5%) are the most commonly used platforms in the country (SIMElab Africa, 2019). These statistics show that Kenyans are using CMCs more as their primary means of communication, hence the need to investigate its relationship with romantic relationship satisfaction. Most studies done in Kenya focusing on university students' usage of CMCs in romantic relationships concentrate on one platform or social media, the negative impacts it has on relationships, emotional and mental wellbeing and not on romantic relationship satisfaction. Mwangi (2019) investigated how students from United States International University, Nairobi, used social media to maintain romantic relationships and the study findings revealed that most individuals used social media to track and monitor their partners without their knowledge, they also compared their partners and relationships with others. These behaviors led to conflicts in the relationships, through feelings of betrayal, mistrust, issues of pressures to conform to peer and society relationship standards which ultimately led to termination of the relationships.

Although there is a rapid increase in internet usage among young adults in Kenya, there isn't enough research data to ascertain the relationship between CMCs and intimacy levels among young adults. This then makes it essential to explore this relationship, studying CMCs through its various platforms as it is rated as the main mode of communication among young adults (CAK, 2019). Evidently, there seems to be limited empirical literature in Kenya focusing on Computer-Mediated Communications usage and intimacy levels. Therefore, this study sought to establish whether there was relationship between Computer-Mediated Communication usage and intimacy levels among dating students at universities in Mombasa County.

Besides, various theories have been developed with different views on human relationships. The current study was reviewed using the Erik Erikson's Psychosocial Theory (1950) and Social Exchange Theory developed by George Homans (1958). In Psychosocial Theory, Erik Erikson (1950) argued that growth and development in a person was as a result of interactions between individuals and their social environments. Erikson's theory further noted that an individual goes through an eight-stage developmental process which takes some time in order to attain identity. From the eight stages covered under this theory, stage 6- Intimacy vs. Isolation involves the young adults aged between 19 to 40 and emphasized on young adults forming long lasting relationships with other people. Thus, this theory was a good fit for the current study which targeted university students in romantic relationship. On the other hand, George Homans (1958) of the Social Exchange Theory argued that individuals' base relationships formation, maintenance and termination on outcomes they perceive from it. This theory put in context then explaining that young adults would get into relationships with the belief that the reward will out way the loss. The theory goes ahead to analyze how the young adults achieve satisfaction through maintaining more rewards (approval) than loss (disapproval) in the relationships. CMCs, through the use of platforms like social media sites, texting and face-timing, allow young adults to easily share their interests, experiences and interact with each other (Smith and Anderson, 2018). Thus, use of CMCs continuously in relationships implies that the reward for using them in the relationship exceeds the costs hence contributing to the continued usage. The rewards or positive outcomes derived from using CMCs are motivations for forming and maintaining relationships. The theory was applied to assess the young adults that strive to attain the virtue of love through gaining intimacy which is achieved through relationship satisfaction basing it on romantic love.

Objective of the Study

To determine whether Computer-Mediated Communication (CMC) usage is related to the intimacy levels among dating students in universities in Mombasa County.

Hypothesis of the Study

H$_0$1: There is no significant relationship between CMC usage and intimacy levels among dating undergraduate students.

Methodology

The study was conducted in Mombasa County, which is the second largest city in the country and has the highest internet penetration according to CAK (2019) and SIMElab Africa (2019). A correlational research design was used to establish the relationship between use of CMCs and intimacy levels among undergraduate students. The target population was 9,883 undergraduate students involved in romantic relationships in universities within Mombasa County. One public university and one satellite university were purposely selected and they included: Technical University of Mombasa and Mount Kenya University, Mombasa campus respectively. Quota sampling was used to select the participants for the study and a sample size of 370 was obtained. This study employed questionnaires to obtain data. The instruments were tested on 29 final year students from Kenyatta University, Mombasa campus and these participants were not part of the main study. Content validity was ensured through the review of empirical and theoretical literature. To measure the reliability of the instruments, a computation using Statistical Package for the Social Sciences (SPSS-version 24) was done to establish Cronbach's reliability coefficient which was 0.75 and the instrument was considered appropriate. Couples Satisfaction Index (CSI), a 32-item scale was designed to assess current intimacy among dating students. To analyze qualitative data, thematic analysis was used while descriptive statistics were employed to analyze quantitative data, which was presented using frequencies and percentages. Inferential statistical analysis was used to allow the researcher to assess the relationship between variables as well as make generalization about the population from which the sample is drawn, thus a Pearson correlation test done to determine the relationship between CMC usage and intimacy levels. Statistical Package for Social Sciences (SPSS) version 24 and Advanced Excel were used to analyze the quantitative data.

Results and Discussion

The objective of the study was to establish the relationship between CMC usage and intimacy levels amongst dating undergraduate students in universities within Mombasa County. This section presents data on the various demographic characteristics of the respondents which were vital in the comparison of CMC usage and intimacy levels; and the Pearson Product Moment Correlation analysis of the relationship between Computer-Mediated Communication (CMC) usage and intimacy levels.

Demographic characteristics of the respondents

To establish the relationship, the study analyzed data on various demographic characteristics and they included: gender, age, religion, relationship status, length of romantic relationship, and the

CMCs available and in use by the respondents. The results for each variable were illustrated on the tables and figures below:

Figure 1: Distribution of Gender
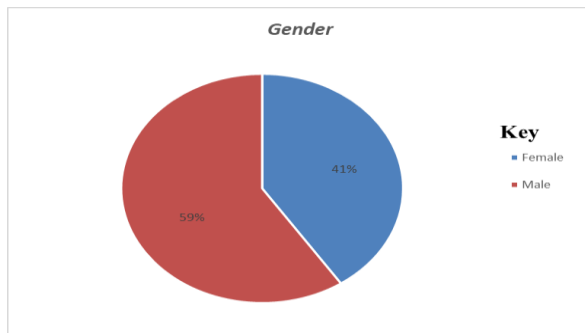
As indicated on Figure 1 above, it's clear from the analysis that male respondents formed the largest portion of the sample size as evidenced by 59% while females were 41% of the respondents, hence signifying there is a connection between gender and intimacy, and that both genders have access to CMCs. These findings resonate with those of Kaya and Iwamoto (2019) who found that women were slightly less satisfied than men. However, the moderator's analysis revealed that this difference was due to the addition of clinical samples that showed that women were significantly less satisfied than men. In addition, longitudinal studies have generated conflicting results on the role that gender plays in relationship satisfaction. While, some studies found no significant gender differences in the development of relationship satisfaction for example, Xia and Fosco (2018) who established that there were other factors that influenced romantic relationship of young adults such parenting styles and family climate while gender had no influence. Other studies indicate a more negative trajectory for the male gender, for example a study by Lavner & Williamson (2020). Thus, it was important in the current study to consider gender as a moderator and examine whether the level of intimacy differs between women and men with the influence of CMC usage.

Figure 2: Distribution of Age
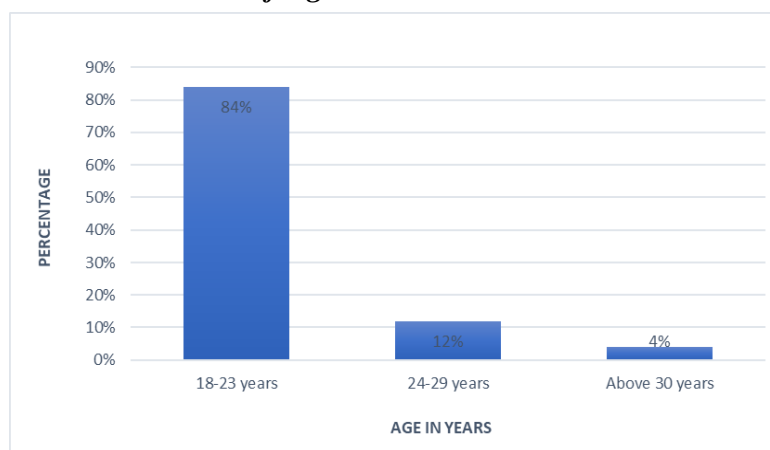
The study results on the age distribution of the respondents as presented in Figure 2 above showed that the majority 84% of the respondents were aged between 18 and 23 years. The average age of

the participants was 21.7 (SD = .65726). The results signify that most of the respondents were young people and unsurprisingly this is the group found in the current universities and institutions of higher learning in Mombasa. This analysis therefore revealed that most respondents were young people, who are also found in universities and institutions of higher learning in Mombasa. These findings concur with the National ICT survey report conducted by the Communications Commission of Kenya (CCK) in partnership with Kenya National Bureau Statistics (2020) which established that the youths aged between 17-25 years used media more than any other age group. In addition, 90% of these youths use phones to communicate with their friends, classmates, teachers and families. Similarly, a study by Xia and Fosco (2018) investigated developmental transitions surrounding romantic relationships among 974 young adults aged between 18 to 25 years living in rural and semi-rural places of Pennsylvania and Iowa. The study results found that most 80% youths aged between 18 -25 years were in romantic relationships and there was a relationship between family functioning and young adults' interpersonal skills. From both studies it can be concluded that young people are the main crowd that use the CMCs.

Furthermore, the respondents' age bracket is consistent with the Psychosocial Theory exemplified by Erikson (1950 &1963), who argued that the central role and needs of persons of the current generation and within the age bracket of 20-40 years is in strengthening their romantic associations which also is a critical stage in life. Therefore, undergraduate students are best suited for this study due to their age, frequency of using computer-mediated communication, and their status as digital natives.
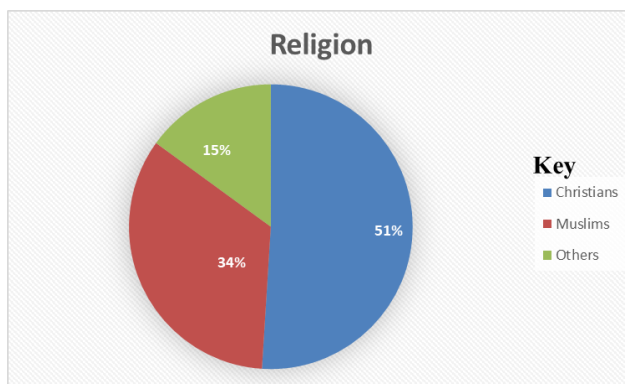
Figure 3: Distribution of Religion

Figure 3 above illustrated the results on the distribution of religious affiliation of the sampled respondents. It was established that the majority of respondents were Christians with 51%, followed by Muslims represented by 34% and other religions at 15%. The results signify that religion was a significant element in maintenance of romantic relationship. These findings support the national 2019 census statistics on religion which indicated that Christianity (represented by 49%) was the most dominant religion in Kenya (KNBS,2019). These findings reveals that there was a link between the quality of being religious for a partner and quality of romantic relationship as majority of the respondents were associated to a certain religion. These findings concur with past studies by Abbas et al., 2019 who established that the level of religious commitment among couples determines the frequency of communication among them. The argument presented in the study was that individuals with strong religious ties could easily make a good fit thus, limiting the

chances of being intimate with someone else outside the norms of the religion, the strive to be a good person and reduce conflict.

Table 1: Distribution of Relationship Status

Relationship Status	Frequency	Percentage
Single	7	2%
Married	4	1%
Committed Romantic Relationship	339	97%
Total	350	100%

Table 1 presents the results of the distribution of relationship status of the respondents. The study findings depicted that majority 97% of the respondents were in a committed romantic relationship while 2% recorded that they were single. Only 1% of the participants were married. The research also established that the participants who reported to be single were previously involved in romantic relationships that ended as a result of conflicts associated with CMC usage. This analysis implied that many students were in committed romantic relationships as they felt it was in line with future marriage life which they believed they were not far from. These findings are in agreement with recent research by Daina (2021) on dating in universities, a case of undergraduate students in KCA University. The research findings revealed that most (77%) students were dating alongside their studies and they reported that dating while in campus enabled them to handle the good and bad experiences that one would encounter during marriage. These results also concur with the Social Exchange theory (George Homans,1958) that guided this study, which argues that individuals' base relationships formation, maintenance and termination on outcomes they perceive from it, either positive or negative. If the outcomes are negative, they consequently end such relationships and the vice versa is true (Jahan and Kim, 2020).

Figure 4 : Distribution of Length of Romantic Relationship
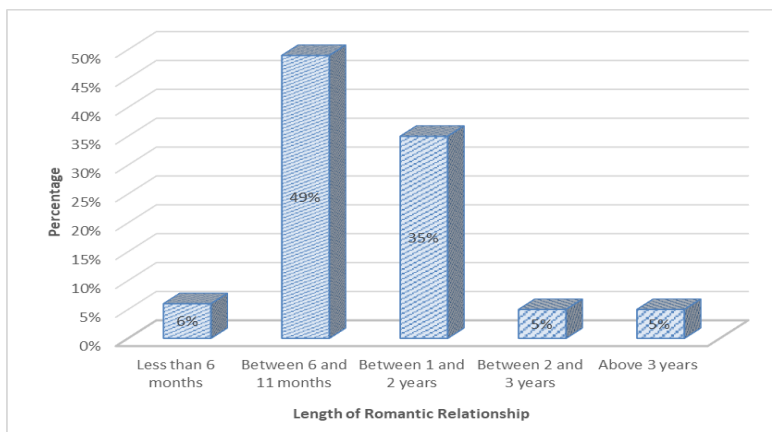
From Figure 4, a total of 49% of respondents reported that they had stayed in a romantic relationship between 6 and 11 months the least (5%) reported they had been in romantic relationship for 3 years and above. The average relationship duration in the sample was 10.7 months (SD = 1.24621). The results implied that most romantic relationships didn't last more than 2 years due to possible interruptions caused by CMC usage as majority of respondents reported

that there was mistrust in their relationship. These results corroborate those of Kili and Mulwo (2022) who evaluated the dynamics of forming social relationships in online platform among university students, revealed that majority (58%) of young adults in Kenya in a committed relationship, had in several occasions caught by their partners using mobile phones to send implicit messages that stirred up conflicts and negative outcomes which adversely affected relationship satisfaction due to trust issues.

Figure 5: Distribution of Individuals Living with a Partner
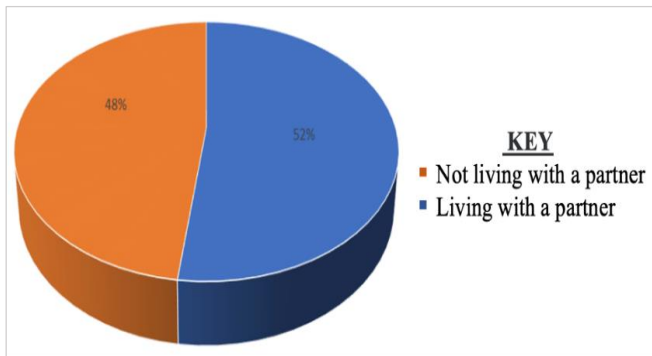
As illustrated on Figure 5, majority (52%) of the respondents reported that they lived together with their partners while 48% registered that they were not living together with their partners. These findings implied that the respondents who agreed to have lived with their partners for the longest had a firm romantic relationship and used CMCs less to communicate with their partners thus high levels of intimacy, emotional security and trust. These results are consistent with those of Hall and Adams (2020) who found that living together with a partner was a sign of long-term commitment, provided emotional support and cultivated the belief that marriage time comes, the transition will be very easy. Therefore, the findings of the latter study supported the reason as to why most students in romantic relationships perhaps had already moved in with their partners.

Figure 6: Length of Living with a Partner
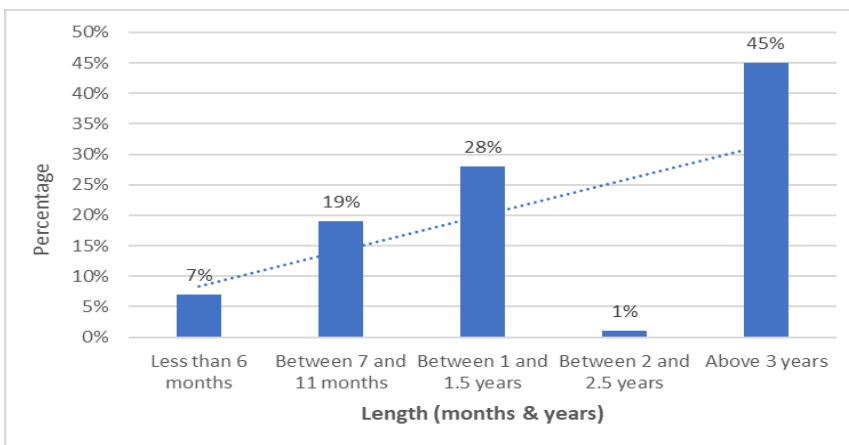
The results presented in Figure 6 revealed that 28% of the respondents had lived together for a period between 1 and 1.5 years, 19% recorded that they had indeed lived together for a period

between 7 and 11 months. The minority were 1% said that they had lived together for a period between 2 and 2.5 years. Finally, the majority 45% agreed that they had lived together for a period of over 3 years. The average time spent living with a partner was 1.9 years (SD = .87622) signifying that the respondents who agreed to have lived with their partners for the longest had a firm romantic relationship and used CMCs lesser to communicate with their partners thus high levels of intimacy.

These results were in line with those of Kardan-Souraki et al., 2018, who emphasized the importance of marital duration as a factor promoting intimacy. The researchers found that couples who have been married longer had a stronger marital intimacy, and that spending more time together gives them a chance to know and learn each other deeper thus strengthening the bond between them which in turn increases love, devotion, and the ability to sacrifice personal needs when necessary. This was also echoed by Lewin (2018) who examined the intentions of couples to live together and established that individuals who lived together with their partners for the longest time had high level of relationship satisfaction.

Figure 7: CMCs used by Individuals to Communicate with a Partner
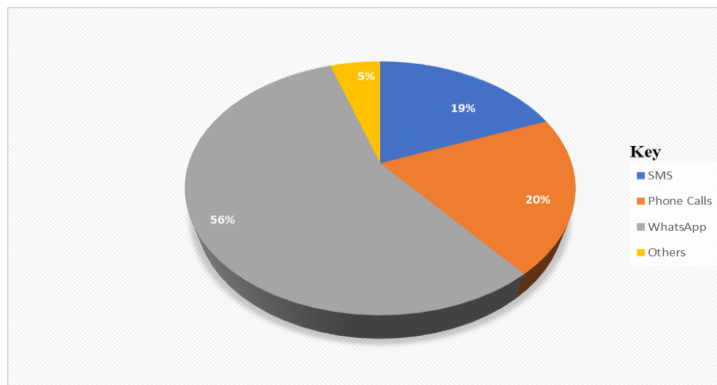
The analysis as indicated in Figure 7 above revealed that the CMCs commonly used were; WhatsApp which was on the lead (56%) while 20% used phone calls, 19% used SMS and the rest 5% reported that they used other types of CMCs such as twitter, vibe, Facebook Messenger, snapchat, emails, telegram and skype. This agreed with findings by Leung (2018), who studied the relationship between unwillingness to communicate and Short Message Service, i.e., text messaging via mobile phones, in 532 students from Socriater College in the United States. The researcher reported that young adults preferred text messaging because they found it less intrusive than a phone call and quicker than an e-mail. Similar findings were reported by Hampton and Sprecher (2019) who conducted a study showing that familiarity actually creates attraction in acquainted social interactions. These scholars found that communication builds intimacy and thus leads to positive relationship outcomes such as satisfaction. As portrayed in this study, it is possible that WhatsApp and SMS may have contributed to higher relationship satisfaction among the undergraduate students in universities because of its positive association with communication satisfaction.

Figure 8: CMCs Devices Accessible
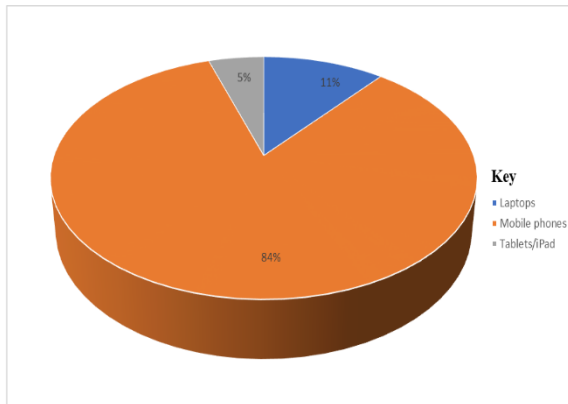
From the study analysis as presented in Figure 8 above indicated that majority (84%) of the respondents had access to mobile phones, 11% had access to laptops while only 5% had access to tablets. These results implied that mobile phones were the mostly used devices since they are affordable among the students. Therefore, these findings agree with those of Anderson and Jiang (2018) who examined teens, social media and technology. The results revealed that due to the rapid application of technology, communication among the young adults have been made possible through various social media platforms such as Facebook, WhatsApp, YouTube and Instagram. According to this survey, three-quarters of young ones have phones, 92% reported go online daily and 24% of this said to go online almost constantly. Further, according to the findings, mobile phones were praised as a promising means of providing mental interventions to young adults and adolescents because they were very flexible, interactive and spontaneous in nature making it easiest to access information. This is because mobile phones are more affordable and unlike laptops and tablets whose access is very rare, and many people spend more time on phones than on laptops.

The relationship between CMC usage and intimacy levels among university students
In determining the relationship between CMC usage and intimacy levels, the Pearson Correlation Coefficient was used. To obtain this relationship, a null hypothesis was formulated:

 H$_0$1: There is no significant relationship between CMC usage and intimacy levels among dating undergraduate students.

To test this hypothesis, the researcher carried out a Pearson Product Moment Correlation Coefficient (r). The evidence against the null hypothesis known as the P-value was calculated and compared with a significance level of 0.05. Table 2 shows the results of the Pearson product Moment Correlation Coefficient between CMC usage and intimacy levels, and its significance tested at 0.05 level.

Table 2 : Pearson Correlation between CMC Usage and Intimacy Levels

		CMCs usage	Intimacy levels
CMCs usage	Pearson Correlation	1	.554**
	Sig. (2-tailed)		.004
	N	350	350
Intimacy levels	Pearson Correlation	.554**	1
	Sig. (2-tailed)	.004	
	N	350	350

**. Correlation is significant at the 0.05 level (2-tailed).
Mean is 4.3120
Standard Deviation is .37975

From Table 2, there was a significant positive correlation between CMC usage and intimacy levels amongst dating undergraduate students, r (350) = 0.554, P=0.004<0.05. The correlation coefficient was found to be 0.554 and the p-value was 0.004 lesser than 0.05 hence there was a significant relationship. This implied that increased usage of CMCs correlated with higher levels of intimacy, while decreased usage of CMCs correlated with lower levels of intimacy. The mean value was 4.3120 (SD = .37975) signifying that indeed there was a relationship between computer-mediated communications and intimacy levels amongst undergraduate students in universities within Mombasa County. Therefore, based on these results, the null hypothesis indicating no significant relationship between CMC usage and levels of intimacy was rejected.

The study findings implied that CMC usage affected levels of intimacy among dating students at Mombasa County universities. These findings concur with those of High, Ruppel and McEwan (2022) who set out to investigate on the relationship between CMC and well-being in the current times of social media. The findings established that those who used high frequency of CMCs had increased levels of intimacy which resulted to high relationship satisfaction. This is probably because partners feel connected through the CMCs, even when living far away from each other. In addition, Jahan and Kim (2020) who sought to understand the online community participation behavior and perceived benefits from a social exchange theory perspective as pointed out by (George Homans, 1958) on the young adults strive to attain an intimate relationship. Jahan and Kim (2020) argued that individuals with strong relationship ties tend to communicate frequently as compared to those in weak perceived ties thus individual will apply reciprocity toward the area or source from which they received more benefits. This supports the findings of the current study that there is a positive relationship between CMC usage and intimacy levels among university students, since they are the main crowd that use the CMCs, leading to the effective maintenance of the quality romantic relationships. In contrast to these findings, a report by the UNHRC (2019) found that the nature of internet communication has greatly expanded, computer-mediated communication has become an ongoing part of daily life, and the use of CMCs continues to increase thus resulting to distraction from intimacy with partner, jealousy and mental health issues that have killed many relationships and marriages. This can be rationalized by the rising rates of breakups, separation and divorce cases among the young adults in Kenya according to a recent data released in June, 2022 by the Judiciary (SOJAR, 2022).

Conclusion

From the study findings, it was evident that various demographic characteristics such as gender, age, religion, relationship status, length of romantic relationship, and the CMCs available,

influenced the relationship between CMC usage and intimacy levels. The study concluded that there exists a positive relationship between CMC usage and intimacy levels among dating undergraduate students. Therefore, CMC usage among university students and young adults in general, should be controlled to promote healthy and long-lasting romantic relationships that would lead to good marriages that are bedrocks of a strong society and nation at large.

Recommendations

The findings depicted that there exists a significant relationship between computer-mediated communications and intimacy levels among university students. Thus, this study recommends establishment of new policies in universities to regulate the use of CMCs. Secondly, the study recommends that there is need for massive provision of counselling services due to the increasing cases of mental health issues as established in this research, in order to promote healthy romantic relationships among university students. Finally, future studies should consider looking into assessing the measures of engagement (absorption, dedication and vigor) against personal and professional use of CMCs.

References

Africa, S. (2019). Social Media Consumption in Kenya: Trends and Practice. *Online https://www. usiu. ac. ke/assets/file/SIMElab_Social_ Media_Consumption_in_Kenya_report. pdf*.

Anderson, M., & Jiang, J. (2018). Teens, social media & technology 2018. *Pew Research Center*, *31*(2018), 1673-1689.

Ayandele, O., Popoola, O., Obosi, A., & Busari, A. (2019). Depression, anxiety and smart phone addiction among young people in South West Nigeria. *Covenant International Journal of Psychology*.

Carmela Annosi, M., Brunetta, F., Capo, F., & Heideveld, L. (2020). Digitalization in the agri-food industry: the relationship between technology and sustainable development. *Management Decision*, *58*(8), 1737-1757.

Commission For University Education, Kenya. (2018). *University Statistics (2017/2018).* ISBN 978 – 9966 – 009 – 27 – 2.

Communication Commission of Kenya (2019). *Quarterly Sector Statistics Report Second.* Kenya.

Cook, K., Cheshire, C., Rice, E., & Nakagawa, S. (2013). *Social Exchange Theory*.

Crocker, L., & Algina, J. (1986). *Introduction to classical and modern test theory*. Holt, Rinehart and Winston, 6277 Sea Harbor Drive, Orlando, FL 32887.

Donga, G., & Zindiye, S. (2018). Assessing the acceptance of mobile marketing among South African students. *Business & Social Sciences Journal*, *3*(1), 46-57.

Funk, J. L., & Rogge, R. D. (2017). Testing the ruler with item response theory: increasing precision of measurement for relationship satisfaction with the Couples Satisfaction Index. *Journal of family psychology*, *21*(4), 572.

Galadanci, G. S. M., & Abdullahi, S. B. (2018). Performance analysis of GSM networks in Kano metropolis of Nigeria. *American Journal of Engineering Research*, *7*(5), 69-79.

GOK. (2020-2021). Annual Reports, State of the Judiciary. PC/RVP/5/6/2.

Griffin, M., Canevello, A., & McAnulty, R. D. (2018). Motives and concerns associated with geosocial networking app usage: An exploratory study among heterosexual college students in the United States. *Cyberpsychology, Behavior, and Social Networking*, *21*(4), 268-275.

Hall, S. S., & Adams, R. A. (2020). "Not Just Me Anymore." A Qualitative Study of Transitioning to Marriage after Cohabitation. *Journal of Family Issues*, *41*(12), 2275-2296.

Hampton, A. J., Fisher Boyd, A. N., & Sprecher, S. (2019). You're like me and I like you: Mediators of the similarity–liking link assessed before and after a getting-acquainted social interaction. *Journal of Social and Personal Relationships*, *36*(7), 2221-2244.

High, A. C., Ruppel, E. K., McEwan, B., & Caughlin, J. P. (2022). Computer-Mediated Communication and Well-Being in the Age of Social Media: A Systematic Review. *Journal of Social and Personal Relationships*, 02654075221106449.

Jahan, N., & Kim, S. W. (2020). Understanding online community participation behavior and perceived benefits: a social exchange theory perspective. *PSU Research Review*.

Kaya, A., Iwamoto, D. K., Brady, J., Clinton, L., & Grivel, M. (2019). The role of masculine norms and gender role conflict on prospective well-being among men. *Psychology of Men & Masculinities*, *20*(1), 142.

Kenya National Bureau of Statistics (KNBS). (2019). *University Enrollment 2019/20.* Economic Survey.

Kili, S., Mulwo, A. K., & Kutto, V. (2022). Dynamics of Social Relationships Formation and Management in the Online Platform among University Students at Selected Universities in Kenya. *Journal of African Interdisciplinary Studies*, *6*(10), 138-167.

Lee, K. E., & Chang, H. K. (2021). Factors Affecting Romantic Relationship Satisfaction of University Students. *Medico Legal Update*, *21*(1), 1252-1258.

Mugenda, O. M., & Mugenda, A. G. (2013). *Research methods: Quantitative and qualitative approaches*. Acts press.

Mwangi, M. N. (2019). *The Influence of social media on the Maintenance of Romantic Relationships Among College Students: a Case of Undergraduate Students in the United States International University-Africa* (Doctoral dissertation, University of Nairobi).

Silver, L., Huang, C., & Taylor, K. (2019). In emerging economies, smartphone and social media users have broader social networks. *Pew Research Center*.

Smith, A., & Anderson, M. (2018). Social media use in 2018. *Pew research center*, *1*, 1-4.

Social Media Lab Africa. (2019). *Social Media Consumption in Kenya: Trends and Practices.* United States International University-Africa.

Sorokowski, P., Sorokowska, A., Karwowski, M., Groyecka, A., Aavik, T., Akello, G., ... & Sternberg, R. J. (2021). Universality of the triangular theory of love: Adaptation and psychometric properties of the triangular love scale in 25 countries. *The Journal of Sex Research*, *58*(1), 106-115.

Tobore, T. O. (2020). Towards a comprehensive theory of love: The quadruple theory. *Frontiers in Psychology*, *11*, 862.

United Nations Habitat. (2020). Financing for Resilient and Green Urban Solutions in Mombasa, Kenya. United Nations Human Settlements Programme.

Williamson, H. C., & Lavner, J. A. (2020). Trajectories of marital satisfaction in diverse newlywed couples. *Social Psychological and Personality Science*, *11*(5), 597-604.

Xia, M., Fosco, G. M., Lippold, M. A., & Feinberg, M. E. (2018). A developmental perspective on young adult romantic relationships: Examining family and individual factors in adolescence. *Journal of youth and adolescence*, *47*, 1499-1516.

Xu, M. L., & Leung, S. O. (2018). Effects of varying numbers of Likert scale points on factor structure of the Rosenberg Self-Esteem Scale. *Asian Journal of Social Psychology*, *21*(3), 119-128.