# IMPACT OF PSYCHOLOGICAL DISTRESS ON ACADEMIC PERFORMANCE OF FEMALE STUDENTS IN TERTIARY INSTITUTIONS IN LAGOS STATE

#### BY

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#### Abstract

This study investigated the impact of psychological distress on academic performance of female students in tertiary institutions in Lagos state. A simple quantitative research was carried out in three tertiary institutions in Yaba Local Government Area. A closed-ended Questionnaire was designed by the researcher which was used as the research instrument to collect relevant and needed data from the respondents of this study. The data collected was analyzed using descriptive statistics. The findings from the study revealed that the key psychological factors that affect female students' academic performance include: economic factors and physical/natural changes. Female students face both academic and non-academic challenges such as: responsibilities of motherhood, gender inequality, gender-based violence against women and girls, early marriage challenges, financial instability and female monthly cycle, intimate relationships challenges which could lead to heart-breaks and depression that summarily have the propensity to alter their state of mind at every point in time making women feel unpleasant thereby releasing negative energy that could result in low performance in all aspects of their academic performance.

**Keywords**: *Psychological distress, Tertiary institution, Female students, Physical/natural changes, Intimate relationships, Economic factors, Gender-based violence* 

#### Introduction

In recent times the rate of success in the career development of individuals has been attributed to academic performance at graduation. The importance of education in career progress cannot be overemphasized. Academic performance and career aspirations works hand in hand with the career performance of students. Students' wellbeing is now used as a performance indicator of most institutions (Hewitt et al, 2019). In higher institutions of learning, academic achievement and performance of students in a given course, determine how successful student would be in his study (Bell, 2013, Sharma, 2012; Aminu & Timothy, 2014). For instance, In Nigeria many youths go into unsuitable careers due to ignorance, in-experience, peer pressure, advice from friends, parents and teachers or as a result of the prestige attached to certain professions without adequate vocational guidance and career counseling (Salami, 1999 as cited by Issa & Nwalo, 2008).

Academic performance has been identified as a key factor that is of great concerns to students, teachers, parents and the society at large. The conceptualization of academic performance has been identified as school performance, academic achievement, and school readiness of a student. It has been stated that academic performance was thought to be the most important result of formal educational experiences while there are some misconceptions as to the vital role such achievements play in the student future (Kell, Lubinski & Benbow, 2013). According to Allen (2005), academic performance is the result of learning expressed through grades induced by teacher's instructions on the use and application of existing curriculum; the grading practice used by teachers is designed to communicate students' performance in diverse areas which includes academic performance can be induced by some dynamic factors which include finance, low standard of living, health, mood of students during assessment and others. Researchers and policy makers are increasingly turning to social and emotional factors, as indicators to students' well-being and psychological health (Chernyshenko,

Kankaras & Drasgow, 2018; Frydenberg, Martin, Collie, 2017; Moore, Mok, Chan & Lai, 2006) all this factors affect the psychological wellbeing of a student. Mental health is a state of well-being that allows individuals to navigate the challenges of their work and function productively in their daily life WHO (World Health Organization, 2018).

High levels of psychological distress are indicative of low productivity which may reflect poor academic performance leading to under achievement in later life. Psychological distress refers to non-specific symptoms of stress, anxiety and depression. This could impair the health of a student and lead to some form of disorders. Psychological distress could result in lack of appetite, moodiness, anxiety, loss of interest and memory, anger spells, emotional build up, withdrawal from social activity, body pain, fatigue, feeling helpless and hopeless, avoiding family and friends. Karyotaki et al (2020) discovered the relationship between stress in all areas excluding health and well-being of loved ones and mental distress, including a significant dose-response association between extent of stress in each life area and increased odds of mental distress.

With the scanty nature of existing literature on the effect of psychological distress on student performance, it has been quite difficult to identify female students going through psychological distress except when you watch out for some peculiar symptoms. Most of the affected female students suddenly disappear from public space; they become withdrawn, making it difficult to identify that they need help. The tertiary institution consists of people from different backgrounds since it includes polytechnics, colleges of education, science, and art, and universities. Tertiary education is instrumental in fostering growth, reducing poverty, and boosting shared prosperity. A typical tertiary institution confers more of the responsibility on the student. They make their own decisions individually; they make their choices and choose their company. Everyone is responsible for themselves." every man for himself. Due to the nature of the tertiary institution, many students going through psychological distress are difficult to spot except if they reside in school hostels where they are meant to live with other students as roommates. Tertiary institution students are supposed to live independently; structure their time, and live life according to their terms and everyone minds her business except if they developed friendships from attending classes or living in the same room or hostels. Many life issues could trigger psychological distress in female students ranging from their biological makeup, relationships, financial problems, environmental factors and so on. Studies estimated levels of psychological distress (measured using GHO-12) among adults increased from 24.3% between 2017 and 2019 to 37.8% in April and the increase was 6.9 percentage points greater among women than men (Maya, Ghida, Samer, Hani & Firas 2021).

Cases of Women's psychological distress have increasingly worsened over the years in Africa (Michelle, 2020); this could be attributed to the growing family burden on women, increase in caring responsibilities as well as social economic factors which have been identified as the main factors that have consistently widened the gender gap and inequality in most African societies. The hierarchical regression analysis showed that higher financial worries were significantly related to higher psychological distress; the difference in impact between genders (Soomin Ryu et al 2022). Although there have been some government and private interventions towards bridging the gender gap and reducing the psychological stress limiting female student academic performance in Nigeria. But most of these policies and interventions have been limited in their coverage and actualization due to the lack of political will of the government, and the poor record and assessment system of the interventions. Hence, it is imperative to identify the effect of psychological stability on female students' academic performance and the long-run effect on the career development of the students. To those mentioned above, this student poses the following research questions.

## **Research Objectives**

The aim of the study is to:

- 1. examine the impact of psychological distress on the academic performance of female students in tertiary institutions.
- 2. determine the factors that trigger the psychological instability of female students.

#### **Research Questions**

- 1. What impact does psychological distress have on the academic performance of female students in tertiary universities?
- 2. What are the factors that trigger the psychological instability of female students?

#### Literature Review

Many studies have analyzed the effect of student performance on career, and the constraints students face limiting their academic performance and productivity. However, scanty literature exists on the effect of psychological stress on female students' academic performance and career progress in the Lagos Metropolis. About 37% of adults reported the inability to cope with short term liquidity needs. According to the Census Bureau's household pulse survey in January 2021, 11% of U.S adults said sometimes they could hardly meet their financial needs (McCloud & Dwyer, 2011). Growing evidence has it that income status and worries play significant roles in Mental Health (Asebedo &Wilmarth, 2017)

Psychological distress can make it harder to earn and manage your money, and debt can trigger or worsen conditions such as anxiety, stress, and depression. There is a common misunderstanding that people find themselves in debt due to living an excessive lifestyle or going "wild in the aisle" with credit cards or misplaced priorities of their needs and wants. The truth is that unemployment and redundancy are the most common triggers for debt problems and can happen to anyone, no matter what their attitude to money may be. Life changes such as losing your job, economic situation, mental and physical health problems, or the death of a breadwinner make the student struggle to pay bills, and having to adjust to such a financial change can be very difficult. Studies show that one out of five adults is going through a psychological distress of which 7.8% experience major depressive episode and 19.1% have anxiety disorders (Mental Health America, 2020).

The student's inability to pay bills begins to border on their psychological health which bothers their productivity. Debt can be a considerable burden, made worse by dealing with it alone. Worrying about debt can affect your sleep; we need to sleep well to help our bodies recover for the day and to allow healing to take place. A lot of them struggle to get a good night's sleep. One out of three female students suffers sleepless nights due to financial constraints and the inability to sleep results in them feeling grumpy or unfocused, feeling physically unwell which is linked to heart disease, diabetes, premature aging and even loss students with the financial problem are significantly more likely to experience psychological problems. Studies show that 46% of people in problem debt also have a psychological disorder. Financial difficulties are a common cause of stress and anxiety. Stigma around debt can mean that people struggle to ask for help and may become isolated. The impact on people's mental health can be particularly severe if they resort to cutting back on essentials, such as heating and eating, or if creditors are aggressive or insensitive when collecting debts. Financial difficulty is a common cause of stress and anxiety and victims are likely to have thought about suicide.

The result of this financial constraint could be evident in a lack of concentration and focus which leads to academic underachievement or failure of the student to perform up to expectation. Perinatal physiological factors and perinatal and postnatal experience also contribute to female psychological well-being. The perinatal state is the phase of exposure to pregnancy and the year after giving birth. Antenatal is well the woman is pregnant postnatal during the first year after the child being it's natural for women to experience a range of various emotions due to their physiological makeup which has the ability to affect their mental health. A "perinatal" mental health it's natural as having to bear a baby is a big life event that comes with a lot of emotions. But if any difficult feelings start having more effect on your daily life, that female might be experiencing a prenatal mental health problem. This problem ranges from eating problems during and after pregnancy to feeling unwell and perinatal disorders. There were nearly 250,000 babies born in 2014 to teen moms, according to the U.S department of health and human services. About 77% of these pregnancies were unplanned (World Health Organization, 2014). An unplanned pregnancy can change the course of a female student's life; it puts her but also another human being. This brings about mental changes which could result

in attempting to force finish school sleepless nights, anxiety, and more. While not all women are affected greatly by psychological and physical changes many are;

A researcher studied more than 6,000 Canadian women, an age range of 15-25. The females experienced postpartum depression at a rate that was twice as high as women 25 and older. They also have children who are not mothers, young mothers are more likely to experience post-traumatic stress disorder (PTSD) than other female students who are not pregnant. Pregnant female students are more likely to perform poorly in their academics due to this pregnancy-induced psychological distress. Poor mental performance is generally more common during menstruation and several days prior to on-bet. Premenstrual symptoms (PMs) can cause dizziness, nausea, and muscle cramps which could hinder or reduce the academic performance of female students in tertiary institutions. Some researchers and policymakers have argued that menstruation may be causing girls to miss a significant number of school days. At maximum, some have estimated that girls might be missing as much as 10 to 20% of school days due to menstruation. (Mental Health Foundation UK)

Considerable research supports the widespread complaint of mood and behavioral changes during the menstrual cycle. However, there is little evidence of its effect on intellectual performance even though students commonly complain about it. During adolescence, teens become interested and involved in dating because of the desire to belong with others. As a result, after some time the relationship gains importance. Female adolescents crave to have an intimate romantic relationship in which love is given and received without restrictions. It is according to the need to belong theory people have the determination to connect with others in enduring close relationships. Myers (2010) supported the need to belong theory by asserting that people who find a person complimenting their needs to whom they can share problems make those people more knowledgeable. The need to belong refers to the idea that humans have a fundamental motivation to be accepted into relationships with others and to be a part of social groups. The motivation to form and sustain at least a minimum amount of social connection is one of the most powerful, universal, and influential human drives. It shapes emotion, cognition, and behaviour.

Explaining self-esteem as an internal measure of one's chances of having good relationships, Females long or feel more intimate in relationships than men who are oriented toward a larger network of shallower relationships. Studies of rejection show that thwarting the need to belong produces drastic or sometimes puzzling effects, including increases in aggression and self-destructive acts and decreases in helpfulness cooperation self-control, and intelligence lab rejection studies produce an emotional numbness that has pointed the way to question the basic functions of emotion and how emotion affects behavior and productiveness. Disappointment, sexual assault, and physical violence in their relationships can result in mental health problems in females who are oriented naturally towards intimacy thereby sacrificing and investing more into the relationship even though they are not so sure of the other party in the relationship.

Everyone is affected differently by all these issues. There is no wrong or right way to be or feel some of this impact could be heartbreak, STIs, pregnancy, difficult emotions and training-related issues such as anxiety, post-traumatic stress disorder (PTSD), flashbacks, and nightmares. Sexual violence and physical abuse can impact the lives and well-being of female students in so many ways like their physical health, mental and emotional health, behavior and habit, school work and concentration, social life, sleep, social life, and many more. Physical injuries, STIs, and pregnancy could cause cuts, tears, bruises, soreness, and swelling. This experience might leave the victim feeling angry, moody, dirty, guilty, scared, unable to trust, lonely, numb, worthless, anxious, hopeless, stressed, cheated, tired, exhausted, slow mentally, physically, and emotionally, suicidal and uninterested in their daily routine which is supposed to be schooling which is their primary aim.

## Methodology

This study was designed for a simple quantitative research finding. It is dedicated to beginner quantitative researchers to enhance and continue more study into these mental health issues and their impact on the female student. This study aimed to capture the accounts of what is to live through these experiences and how

various participants interpreted them in a way that affected their academic productivity. The pie chart was adopted by the researcher because it is probably one of the easiest charts to understand since this paper is dedicated to beginner quantitative researchers, especially when it is suggested that they see them as real pies. The pie is also known as a "circle chart" dividing a circular statistical graphic into sectors or sections to illustrate the numerical problems. Each sector denotes a proportionate part of the whole. It replaces the bar graph, line spots and histogram, etc.

# Formula

The sum of all the data is equal to 360. It therefore implies that the pie chart formula goes thus:

Given Data

# $\overline{\text{Total value of data}} x 360$

Participants were recruited using a non-probability sampling method called purposive sampling seeking out information-rich individuals. Social media and questionnaire were used for the gathering of information. The study covered 3 higher institutions in Yaba Local Government which included Yaba College of Technology, University of Lagos, Akoka and Federal College of Education (Technical), Mainland, Yaba, Lagos, Also, 120 participants which included undergraduates, Masters/PHD students, NCE and Polytechnic students were selected for this study; their ages ranged between 18-45 years with 40 participants from Yaba College of Technology, 60 from the University of Lagos, and 20 from the Federal College of Education (Technical). Only female students responded to the questionnaire due to the peculiarity of the topic. To maintain anonymity, all individuals were given pseudonyms.

# **Data Analysis Table 1: Demographic Data**

Participant	No of Participants	Age Bracket	
Unilag	60	30-35	
YabaTech	40	18-29	
FCE(T)	20	18-25	

A close-ended questionnaire was administered by the researcher to enable the researcher to get speedy responses without bothering the participant with so much writing. This method will be easier for the participants to answer because communication skill is less critical being that the questionnaire is very direct. The participants were made to tick ( $\sqrt{}$ ) any of the options from 1-3. 1-Strongly disagree, 2- Neither agree nor disagree and 3-Strongly Agree. These proceeds were read to participants and then shown to them on cards; the choice of answer is limited to those shown on the card.

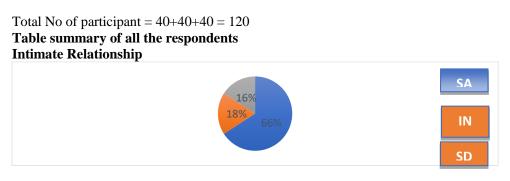
Table 2: Participants of Yaba Conege of Technology					
Does these affect	Strongly Agree	Indifferent	Strongly Disagree		
Biological makeup	31	8	1		
Intimate relationships	23	6	11		
Financial problem	37	2	1		

# Table 2. Participants of Vaba Callege of Technology

Table 3 Participants of University of Lagos Akoka			
Does these affect	Strongly Agree	Indifferent	Strongly Disagree
Biological makeup	47	4	9
Intimate relationship	39	3	18
Financial problems	57	2	1

## Table 4: Participants of Federal College of Education (Technical)

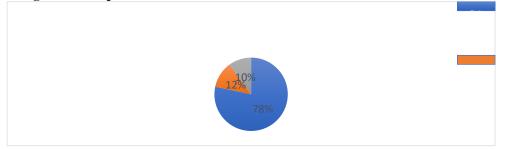
Does these affect	Strongly Agree	Indifferent	Strongly agree
Biological makeup	16	2	2
Intimate relationship	17	0	3
Financial problems	19	-	1



# **Financial Problem**



# **Biological Makeup**



# Table 5: Analysis and summary of results from Tables 2, 3 and 4

Factors	Strongly Agree	Indifferent	Strongly Disagree
Intimate relationship	Yaba Tech = 23 UNILAG = 39 FCE(T) = 17 <b>TOTAL = 79</b>	6+3+10= 19/120 x 100	1+18+3=22 22/120*100
	$\frac{79}{120} \times 100 = 65.8\%$	=15.8%	=18.3%
	65.8/100 x 360 = 236.9 <sup>0</sup>	15.8/100 x 360 =56.9 <sup>0</sup>	18.3/100 x 360 =65.9 <sup>0</sup>
Financial problems	37+57+19=113	2+2+0=4	1+1+1=3
	113/120 x 100	4/120*100	3/120*100
	= 94.1%	=3.3%	=2.5%
	94.1/100 x 360 =338.8 <sup>0</sup>	3.3/100 x 360 =11.8 <sup>0</sup>	2.5/100 x 360 = 9 <sup>0</sup>

Biological make-up	31+47+16=94	8+4+2=14	1+9+2=12
	94/120 x 100	14/120 x 100	12/120*100
	=78.3%	=11.67%	=10%
	78.3/100 x 360 =281.9 <sup>0</sup>	11.67/100x 360 =42 <sup>0</sup>	10/100 x 360 = 36 <sup>0</sup>

# Results

**Table 1** gave a breakdown of the number of participants per institution, the targeted age range, and the number of participants per institution.

**Table 2:** was a sample analysis tabular representation of responses collected from 40 participants of Yaba College of technology and their age ranged from 18 - 29 years.

**Table 3:** is a tabular representation of data collected from 60 students of the university of Lagos and their ages ranged from 30-45 years, this age range became necessary as most postgraduate students were always around due to the strike action embarked on by the Academic Staff Union of Universities (ASUU).

**Table 4:** comprises the result of the questionnaire of 20 students of the Federal College of Education and Technology (FCE (T)).

**Table 5:** is an analysis and summary of results from tables 2, 3, and 4 which are the 120 participants across the three (3) institutions.

The 120 participants were graded according to their submission which was graded with the pre-code.

18.3% of the participants disagreed with the fact that intimate relationships can affect their academic performance while 15.3% percent neither agree nor disagree that it could impact their academic output or alter their psychological state. 65.8% of these female participants strongly agreed that intimate relationships can have an impact on their academic productivity and psychological state. Also, 10% strongly disagreed that financial problems can make them lose focus while 11.6% were indifferent. 78.3% strongly agreed that income status has everything to do with their performance and psychological state. 94.1% strongly agreed that the female biological make-up; which comes with a lot of phases and emotions, could be a distraction to their academic output while 11.6% strongly disagreed that it has nothing to do with their psychological state. However, 10% of the population were indifferent.

## Conclusion

The purpose of this study was to provide an in-depth account of the psychological stress that female students go through and how it impacts their academic performance consequently. The data that was gathered from the close-ended questionnaire that was administered showed that financial stressors, which could be a result of a lot of factors, could cause psychological stress and poor academic output that could limit the performance of the student. Also, the biological makeup of the female student which has to do with the various phases of the female life; monthly circle, ovulation, pregnancy, breastfeeding, menopause and many other factors was seen to have a significant impact on the way they feel at a time; depending on what they are going through. Intimate relationships were also found to have an impact on female students' academic productivity but quite a number of the female students claim their relationship has nothing to do with their academic performance.

#### Recommendations

Many of these factors affect the wellbeing of a student either academically or socially. A huge fissure exists when it comes to higher institutions preparing and equipping students with skills on how to cope with all the adversities study life may toss at them and ultimately which will assist the students not only on their academic success but in career success in the long run. According to Goldman (2000), the most forward thinking educators will recognize the value of EQ in higher education, not just for students, or employers but for the prosperity of the nation.

It is recommended that similar studies be conducted with other student groups using different instruments, observations and interviews to generate more in-depth information on students' problems for counseling implication.

#### References

- Allen, J. D. (2005). Grades as valid measures of academic achievement of classroom learning. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 78(5), 218-223.
- Bell, S., Partridge, B., Lucke, J., & Hall, W. (2013). Australian university students' attitudes towards the acceptability and regulation of pharmaceuticals to improve academic performance. *Neuroethics*, 6(1), 197-205.
- Breedvelt, J. J., Amanvermez, Y., Harrer, M., Karyotaki, E., Gilbody, S., Bockting, C. L., .. & Ebert, D. D. (2019). The effects of meditation, yoga, and mindfulness on depression, anxiety, and stress in tertiary education students: a meta-analysis. *Frontiers in psychiatry*, 10, 193
- Cai, C., Woolhandler, S., Himmelstein, D. U., & Gaffney, A. (2021). Trends in anxiety and depression symptoms during the COVID-19 pandemic: Results from the US Census Bureau's Household Pulse Survey. *Journal of General Internal Medicine*, 36(6), 1841-1843.
- Chatterjee, S., Fan, L., Ryu, S., & Kim, J. (2021). A Decade Review of Asian Studies in the Journal of Family and Economic Issues from 2010 to 2019. *Journal of Family and Economic Issues*, 42(1), 178-194.
- Chernyshenko, O. S., Kankaraš, M., & Drasgow, F. (2018). Social and emotional skills for student success and well-being: Conceptual framework for the OECD study on social and emotional skills.
- Fraser, M., & Blishen, S. (2007). Supporting young people's mental health. Eight points for action: a policy briefing from the Mental Health Foundation London: Mental Health Foundation. Cather.
- Frydenberg, E., Martin, A. J., & Collie, R. J. (Eds.). (2017). social and emotional learning in Australia and the Asia-Pacific: Perspectives, programs and approaches. Springer Singapore.
- Isaacs, N. Z., & Andipatin, M. G. (2020). A systematic review regarding women's emotional and psychological experiences of high-risk pregnancies. *BMC psychology*, 8(1), 1-11.
- Issa, A. O., & Nwalo, K. I. N. (2008). Factors Affecting the Career Choice of Undergraduates in Nigerian Library and Information Science Schools. *African Journal of Library, Archives & Information Science*, 18(1).
- Johnston, J. M., & O'Neill, G. (1973). The analysis of performance criteria defining course grades as a determinant of college student academic performance. *Journal of Applied Behavior Analysis*, 6(2), 261-268.
- Kell, H. J., Lubinski, D., & Benbow, C. P. (2013). Who rises to the top? Early indicators. *Psychological Science*, 24(5), 648-659.
- Karyotaki, A. & Abayomi, O. O. (2020). Psychological distress experiences of Nigerians during COVID-19 Pandemic; The Gender Difference. *Social science Journal*, 2(1)
- Kousoulis, A., McDaid, S., Crepaz-Keay, D., Solomon, S., Lombardo, C., Yap, J., ... & Davidson, G. (2020). Coronavirus: The Divergence of Mental Health Experiences During the Pandemic. *Mental Health Foundation. Retrieved from: https://www.mental health.org.uk/sites/default/files/MHF% 20The% 20COVID-19% 20Pandemic*, 202.
- Li, Y., Wang, A., Wu, Y., Han, N., & Huang, H. (2021). Impact of the COVID-19 pandemic on the mental health of college students: a systematic review and meta-analysis. *Frontiers in psychology*, *12*.
- Maryam, A., & James, T. (2014). Career choice and academic performance of Microbiology students in a Nigerian university. *International Journal of Science and Technology Education Research*, 5(5), 58-66.
- Maya, B. Ghida, K. Samer, E.H., Hani, T. & Firas, K. (2021). Psychological Distress by Physicians and Nurses at a Tertiary Care Centre in Lebanon during the COVID-19 outbreak. *Sage Journals*, 27(6).
- Moore, P. J., Mo Ching Mok, M., Chan, L. K., & Yin Lai, P. (2006). The development of an indicator system for the affective and social schooling outcomes for primary and secondary students in Hong Kong. *Educational Psychology*, 26(2), 273-301.

Mundia, L. (2010). Brunei trainee teachers' coping strategies for stressful situations. *International Journal of Psychological Studies*, 2(1), 79.

Reinert, M., Fritze, D., & Nguyen, T. (2021). The state of mental health in America 2022.

- Rothon, C., Head, J., Clark, C., Klineberg, E., Cattell, V., & Stansfeld, S. (2009). The impact of psychological distress on the educational achievement of adolescents at the end of compulsory education. *Social Psychiatry and Psychiatric Epidemiology*, 44(5), 421-427.
- Rothon, C., Head, J., Clark, C., Klineberg, E., Cattell, V., & Stansfeld, S. (2009). The impact of psychological distress on the educational achievement of adolescents at the end of compulsory education. *Social Psychiatry and Psychiatric Epidemiology*, 44(5), 421-427.
- Sirin, S. R., & Rogers-Sirin, L. (2015). *The educational and mental health needs of Syrian refugee children* (p. 13). Washington, DC: Migration Policy Institute.
- Soomin Ryu, A. & Lu Fan, A. (2022). The relationship between financial worries and Psychological distress among US adults. *Journal Fam Econs Issues 1(1)*. 8
- White, J. S., & Sharma, N. (2012). "Who writes what?" Using written comments in team-based assessment to better understand medical student performance: a mixed-methods study. *BMC Medical Education*, 12(1), 1-11.