

# Key Stakeholders' Perceptions of High-Stakes Testing in Middle Schools in Saudi Arabia: A Qualitative Approach

Philline M. Deraney<sup>1\*</sup>, Amani Khalaf Hamdan Alghamdi<sup>2</sup>, Brenda Kay Mathis<sup>3</sup>, Laila A. Alegaily<sup>4</sup>, Kelly M. Al-Nashmi<sup>5</sup>, Adele Madikoma Mavuso<sup>6</sup>

<sup>1,2,4</sup> Imam Abdulrahman Bin Faisal University, Saudi Arabia

<sup>3</sup> Gulf International School, Saudi Arabia

<sup>5</sup> Ivy Tech Community College, USA

<sup>6</sup> Prince Mohammad Bin Fahd University, Saudi Arabia

\*pderaney@iau.edu.sa

## ABSTRACT

*While assessment research often focuses primarily on the performance and perspectives of students, this qualitative study investigates key stakeholders' perspectives on high-stakes testing (HST) in middle school (grades 7, 8, and 9) in Saudi Arabia. A thematic analysis of in-depth interviews with twelve student, teacher, and parent participants revealed four recurring themes surrounding high-stakes testing: the schools' pedagogical context, perceived responsibility for students' success, sources of test anxiety, and strategies to deal with high-stakes testing. While the common thread was the intended success of students academically, the path to success and concern for students' psychological health were quite varied, even contrary, between parents, students, and teachers indicating a schism between the stakeholders' perspectives on high-stakes testing. Transparent conversations between stakeholders to find common ground that best supports student learning and assessment, increased understanding of the concept and concrete strategies to deal with high-stakes testing, redefining academic success, and alternative assessment solutions could offer a healthy, reciprocal relationship between assessment and learning for all concerned stakeholders.*

## Keywords

General Education; High-Stakes Testing; Test Anxiety; Saudi Arabia

## Introduction

In November 2019, the Saudi Arabian Ministry of Education (MOE) sent a memorandum to administrators of all schools (memorandum, November 8, 2019) with directives to implement mid-year and end-of-year examinations for grade 3 students with plans to apply the same to grades 1 and 2 students the following year. These mid and end-of-year tests, combined, would account for half of each student's final grade and possibly determine if a student matriculated to the next level. As the Ministry has considered reinstating high-stakes testing with early elementary students prior to the COVID-19 pandemic, there is a growing concern about the psychological effects of testing on younger children and adolescents. The Glossary of Education Reform defines high-stakes testing in terms of external rewards:

In general, "high stakes" means that test scores are used to determine punishments (such as sanctions, penalties, funding reductions, negative publicity), accolades

(awards, public celebration, positive publicity), advancement (grade promotion or graduation for students), or compensation (salary increases or bonuses for administrators and teachers). (High-Stakes Test, 2014, para. 1)

Questions arise regarding the effect of high-stakes tests, exams that can affect a student's grade promotion or future (High-Stakes Test, 2014), on students psychologically and academically as an accurate reflection of their true performance, particularly for young learners. Wood, Hart, Little, and Phillips (2016) emphasized that in the case of high-stakes testing, a student's performance may be negatively affected by test anxiety. This concern not only affects students but other key stakeholders as "many educators, parents and students perceive testing as being stressful and often express concerns on the impact of testing on students' physical and emotional well-being" (Simpson, 2016, p.1).

As evidenced in Asia and North America, studies have shown that students are facing increasing stress due to academic demands including high-stakes testing. In Asia, for example, Deb, Strodl and Sun (2015) stated, “Academic stress is a serious issue which affects nearly two thirds of senior high school students” (p. 26). Heissel, Adam, Doleac, Figlio, and Meer (2021) examined the physiological effects of testing on the stress levels of low-income students in grades 3 to 8 in southern public schools in the US. They concluded that “those who responded most strongly, with either increases or decreases in cortisol, scored 0.40 standard deviations lower than expected on the high-stakes exam” (p. 183). Also in the US, Moses and Nana (2007) studied policies surrounding high-stakes testing and explained that while testing as assessment has benefits, “when used in inappropriate ways, tests can be damaging to students both emotionally and academically and can lead to a restriction of educational opportunities, particularly for the least advantaged students” (p. 68). Simpson (2016) and Bhargava and Trivedi (2018) concurred while also suggesting testing can cause stress-related health problems and physiological symptoms such as stomach aches, insomnia, mood changes, and headaches, and increasing parental concern about children’s overall health.

Academic stress, as related to high-stakes testing, is a serious issue that needs attention the world over. In the context of this study, Saudi Arabia, with over 1.5 million middle-school students as of 2019 (Statista Research, 2021), educators and policy makers are increasingly asked to acknowledge the relationship between high-stakes testing and perceptions of stress and anxiety (Mathis et. al, 2021), particularly considering the Ministry’s apparent measures to re-instate high-stakes testing in earlier grades (memorandum, November 8, 2019). Due to the recent COVID-19 pandemic and increasing financial pressures domestically and globally, there are fewer scholarship and tuition-free opportunities for admission into Saudi public universities; private and international universities carry a high cost. Thus, school-aged students, in preparation for university, are also dealing with stress and anxiety related to high-stakes testing—i.e., their university major and consequently their career are ultimately

determined by these tests. GPA and standardized testing, including the Saudi exams (*qudaraat* and *tahseeli*) to enter higher education and increasingly the international exams such as the SAT, are a large part of admission requirements making the process more competitive and arduous. As a result, schools, students, and parents now begin preparation for such future-forming exams, usually taken in the last two years of high school, at the intermediate level.

Thus, this timely qualitative study was conducted as a complementary piece for Mathis et. al’s (2021) inaugural survey research examining the relationship between high-stakes testing and students’ perceptions of stress and anxiety in Saudi middle schools. The study’s results revealed that students (n = 521) from five regions of Saudi Arabia experienced increased stress and anxiety as they advanced each year by grade level and age toward high school. While that study measured students’ self-reported perceptions of test anxiety through survey responses, the purpose of and rationale behind the current research is to probe further into the descriptive perceptions of high-stakes testing through the viewpoint of key stakeholders—students, parents, and teachers. Participants’ direct viewpoints, revealed through focused questions and probing, offer personalized insight into the research topic that can only be found through participant voices. While the students’ perceptions and performance are most-frequently studied in assessment research, particularly in the Saudi context (Al-Rashidi, 2018; Al-Selmi, 2013; Alyami, 2018), other vital ‘investors’ in the education process, including parents and teachers, are increasingly being considered as high-stakes testing and assessment involve the entire academic community.

The results of this study are intended to be shared with officials in Saudi education to further the conversation about the effects and possible alternatives to high-stakes testing, especially for young learners. Although standardized testing is a prominent part of preparation in high school for university studies, there is limited research on the effects of high-stakes testing in the Saudi middle and elementary student population, which is the precursor and foundation to advanced studies.

Therefore, this research uses a thematic analysis of in-depth interviews to investigate the question:

**What are the perceptions of students, parents, and teachers regarding high-stakes testing in middle school grades 7, 8, and 9?**

**Literature Review**

According to Janz (2011), who studied children in grades four to eight in the US, students experienced anxiety regarding HST including reporting frustration or nervousness prior to the test, which did not support or provide accurate assessment of their performance: “Frustration was an emotional response that did not support the cognitive process which was clearly necessary for the assessment tool to provide reliable data. Strategies need to be devised to assist students emotionally” (pp. 78-79). Another study in the US by Amrein and Berliner (2003) researched high-stakes testing policies in 18 states and concluded that it is uncertain if high-stakes testing actually leads to academic success: “such policies have resulted in no measurable improvement in student learning, as indicated by four different independent measures” (p. 37). Heissel, Adam, Doleac, Figlio, and Meer (2021) examined how pre and young adolescent students from a disadvantaged population in the US responded physiologically and academically during high-stakes testing as compared to normal school times. The study found that this age group responded physiologically during periods of high-stakes testing and called on future research to study ways to lessen the possible negative effects of stress on student performance.

As in the current research, previous research on high-stakes testing and testing anxiety have also explored various common themes with key stakeholders. Simpson (2016), who examined the effects of standardized testing, i.e., high-stakes, on students’ overall health, stated that “the effects it has on students’ physical and emotional well-being are also quite troubling and deserve attention. Students often face high levels of stress, from pressure related to college admissions to the demands of school more generally” (p. 1). The research initially mentioned student stress and

noted that teens aged 13-17 in the US reported higher stress levels than adults with 83% perceiving that school is the source of their stress. The participants reported having physical and psychological symptoms of stress and a disproportionate amount of time dedicated to standardized or high-stakes testing. In agreement, surveyed parents were concerned that students were dedicating too much time and academic focus on standardized testing. Teachers mirrored this concern agreeing that, indeed, students are over-focused on standardized exams and exam preparation at the expense of actual learning. Simpson (2016) concluded that “By lowering the stakes associated with standardized testing, educators and students would likely experience less stress and anxiety in connection with testing...teachers would likely be less inclined to utilize messages such as fear appeals when discussing testing, and students would likely feel less pressure in connection with testing” (pp. 13-14). The author’s arguments and critical examination of standardized tests highlight the reciprocal relationship, both positive and negative, between students, teachers, and the policies of high-stakes testing.

Butler (2018) researched the impact of high-stakes testing in two middle schools, grades 6-8, in the Southeastern US. The study aimed “to learn how the curriculum instruction by teachers for these student groups was being affected by testing” (Butler, 2018, p. 58) and how students and teachers in the areas of mathematics and English language arts perceive the effects of high-stakes testing. The researcher found that the planning and instruction for 94% of the teachers in the study was influenced by high-stakes testing, and 89% adjusted their classroom daily routine based on these tests using sentiments such as that they “teach to the test” (p. 61). Teachers mentioned over-emphasis on testing in both time spent and grading weight. As for students, 74% stated that academic labels, as a result of how well students have done on the test—performance or proficiency markers once grades have been published or posted, encouraged them to work harder to increase their scores. However, labels based on performance can also distance or ostracize students: “These students either gave examples of themselves being set apart or seeing

that judgement occur to someone else when proficiency levels were posted at their school” (p. 66). In her recommendations, the author emphasized the negative culture of high-stakes, frequent testing that could potentially result in student “burn-out” (Butler, 2018, p. 71).

Several recent studies have also been done on test anxiety in the Middle East. In Jordan, researchers Al Amryeen and Baioumy (2020) studied test anxiety in secondary school students including the types, causes and effects of test anxiety and ways to mitigate the negative effects through students’ social circles. The study concluded that some anxiety is expected before testing, “but what is not normal is when anxiety exceeds the normal levels and becomes a barrier that prevent[s] the student from achieving success and progress” (Al Amryeen & Baioumy, 2020, p.1). The study further recommended that, in order to reduce test anxiety, awareness lectures and materials should be given to provide background on the test anxiety concept and suitable ways for parents, students, and the community to minimize and deal with test anxiety. The authors, in concurrence with Mathis et. al (2021), also mentioned mock and formative assessments schools to train the students on how to use test strategies and professional development workshops on test anxiety for teachers.

The previous literature studies high-stakes test anxiety and its effects on students, teachers, and parents internationally. The research question and significance of this study lie with investigating test anxiety in middle school students, grades 7-9, in Saudi Arabia, where the majority of related research has been conducted with high school or university students.

A study conducted in western Saudi Arabia at Taif University posited that test anxiety has potentially strong effects on the “cognitive, emotional, behavioral and physical well-being of the medical students and subsequently on their academic performance and achievement” (Alghamdi, 2016, p. 112). Related to the concern of emotional wellbeing, another recent study done with secondary students in the Alqassim region in central Saudi Arabia concluded that, “We have to raise the awareness of the mental health in our community as the prevalence of mental disorder

has significantly increased over time. Health services should make health education for students on how they deal with stress and depression through exercise and good sleep” (Alharbi, Alsuhaibani, Almarshad & Alyahya, 2019, p. 504).

Alhareth and Al Dighrir (2014) examined teacher methods and assessment in the Saudi education system with a focus on intermediate schools. Although the research was not about high-stakes testing per se, the authors advised about the importance of teacher development, student learning—not just performing, and needed further research on assessment in Saudi:

It [assessment] should not be an interruption to the learning and be a goal in itself, as is currently the case in Saudi Arabia... therefore teacher training needs to be examined and informed in order to create standardisation across the student experience. (Alhareth & Al Dighrir, 2014, p. 890)

In his paper, Al Sadaawi (2010) discussed the need to reform standardized testing to serve its ultimate goal of learning but did not mention the psychological and physiological effects of HST on students, teachers, or parents. The author offered a proposal for a national assessment framework for grades 3, 6, 9, and 12, major stages throughout the students’ K-12 journey. In his proposal, several concepts were highlighted for consideration such as assessment standards, variables including school type and socioeconomic status, test blueprints, matrixes, and intended cognitive skills. However, mitigating or solutions for test anxiety were not emphasized which gives more credence to the claim, mentioned earlier, that test anxiety perceptions and effects have not been studied or emphasized sufficiently in K-12 settings, especially with younger students, in the Saudi context. The other studies mentioned, several published within the last five years, highlight the growing emphasis and concern about the effects of high-stakes and increased testing on students’ overall health in the Saudi context.

### Methodology

To explore the perceptions of students, parents, and teachers regarding high-stakes testing in middle school grades 7, 8, and 9, the research design used in this study was a thematic analysis of structured participant interviews in each of the three categories of stakeholders. A qualitative approach was used in this study as the research aimed to explore stakeholders’ perceptions “at a level of depth that quantitative analysis lacks while allowing flexibility and interpretation when analyzing the data” (Castleberry & Nolan, 2018, p. 808). This approach, with rigorous effort of transcribing, coding, categorizing, and interpreting, produces findings that reflect the experiences of the participants.

### Participants

Three groups of stakeholders who play a significant role in middle-school testing were interviewed in this study: parents, teachers, and students. While the intention of the researchers was to interview any eligible participant who volunteered, due to the Covid-19 pandemic and resulting quarantine and online instruction, convenience sampling through educational colleagues was used to engage twelve (n =12) possible participants. The participant demographics of grade, gender, and school type are shown in Table 1.

**Table 1. Categorial and overall demographics of interview participants.**

Category	Grade level/s			Gender		School Type		
Students	9			Male		Private		
	9			Male		Private		
	9			Female		Private		
	8			Male		Private		
	7			Female		International		
Parents	9			Male		Private		
	8			Male		Private		
	9			Female		Public		
	9			Female		Private		
Teachers	8-9			Female		Public		
	7, 9			Female		Public		
	8-9			Female		International		
Overall	Grade 9	Grade 8	Grade 7	Female	Male	Private	Public	International
	75%	33%	17%	58%	42%	58%	25%	17%

### Data Collection and Analysis

To explore the research question, the researchers created and revised the interview protocol (Creswell, 2014) for each of the participant categories considering the focus of the research

question and the physical and psychological behaviors that may manifest during assessment anxiety (Mathis et. al, 2021). For uniformity and internal credibility (Merriam, 2009), the researchers discussed how the structured interviews would be conducted in three stages (as

shown in Appendix A): 1) pre-interview introduction of the topic, research, informed consent, and ensuring the participants are aware and comfortable, 2) interview including demographic questions followed by the topic-focused questions, and 3) post-interview explanation of member-checking for accuracy and answering participant questions. While the interview questions were revised slightly for each group, the main questions were the same to ensure consistency across participant categories and interviewers. Generally speaking, questions dealt with the assessment environment overall, perceptions before/preparing for testing, and perceptions after testing. Those participants who agreed to be interviewed signed a consent form agreeing to share their responses for the purposes of research. For the middle-school student participants, their guardians signed the consent form as well and were available during the interviews.

Interview data were collected May-July 2020 in the Eastern Province. Each interview, approximately 40-45 minutes, was recorded and transcribed to ensure accuracy of responses. After interview data from all three categories were collated into one file, one researcher initially read

the data set, descriptively coded the data, and the recurring themes of student high-test anxiety. All researchers then discussed and revised the data themes throughout the data analysis. Four themes consistently emerged: (a) pedagogical context for learning and testing, (b) responsibility for students' success; (c) sources of student test anxiety and (d) strategies to address test anxiety. Under each theme, data from the three groups were added and re-checked for accurate alignment. In reporting the findings, in concurrence with Corden and Sainsbury's (2006) approach to thematic analysis of data, the researchers chose to use minimal verbatim quotations opting instead for paraphrasing, interpretation, and explanation of participant responses and their relation to the themes.

### Findings

The findings revealed that the participants' perceptions of high-stakes testing focused on four clear themes: the pedagogical context of the testing, responsibility for students' success, causes and sources of testing stress, and strategies to deal with test anxiety as shown in Table 2. The participants' viewpoints are explained by category (parent, teacher, and student) within each theme.

**Table 2. Themes of participants' perceptions of high-stakes testing.**

Theme	Description
<b>Pedagogical context</b>	In this theme, participants described the teaching and learning environment within the classroom including teaching methods, strategies, and tools that prepared students for classroom, standardized, and high-stakes testing.
<b>Responsibility for students' success</b>	Participants' perceptions of the bearer of responsibility for students' success or academic performance (as viewed by the participants) in assessment and testing were articulated in this theme.
<b>Causes and sources of testing stress</b>	The sources of student stress and subsequent emotions were discussed including anxiety before and after major exams, as students approach high school, and sources of testing stress such as parents, schools, and self-imposed pressure the students put on themselves.
<b>Strategies for test anxiety</b>	Participants described general strategies to deal/cope with student test anxiety and decrease negative effects on performance and wellbeing.

#### Pedagogical Context

Participants were asked to describe the teaching methods and assessment tools used in their specific learning context. Reporting these findings first serves to profile the environment within which study participants were experiencing high-stakes testing. Overall, students reported a

teacher-centered pedagogy while teachers recounted a student-centered approach. Students reported traditional teaching methods included PowerPoint presentations, worksheets, in-class questions, and homework assignments. There were mixed opinions of whether tests included material not taught in class with reported resentment for the latter. Students recounted both

formative (unit tests and midterms) and summative assessment (e.g., finals, Measures of Academic Progress [MAP] tests).

Most teachers agreed that assessment and testing are important to gauge students' academic success. Teachers' descriptions of their own teaching and assessment methods went beyond what students said they experienced, expanding to include class participation, research projects, group work, games, board work (problem solving), and comprehensive pre- and post-test reviews. This collection reflects student-centered learning. Unlike students, most teachers felt that their tests included only content covered in class, and they preferred tests with higher levels of difficulty, so that weaker students could be identified and helped.

Parents presented a different profile exclaiming that students were either over-assessed or that testing was adequate but follow-up was lacking. Parents flagged too much standardized testing wanting instead experiential, hands-on learning, collaborative and creative research projects, and tests incorporating critical thinking beyond memorization. Some parents suggested open-book exams and testing with a focus on evaluating research. Other parents sought a balance between academics and exams asking for more extracurricular activities, field trips, clubs, community connections and more humanities topics to balance the predominant subjects of mathematics and science.

### Responsibility for Students' Success

In this mixed perception of teaching and assessment, participants articulated their thoughts on who they felt was responsible for student's success. Students tended to say either they themselves are responsible for their own learning or that their teachers are responsible. Several students intimated that when they "drop the ball" or underperform, they have to assume responsibility for themselves by default. To illustrate, a Grade 9 male student said, "*the teachers at my school have too much 'freedom.' Students learn independently for the most part with random teacher assistance. Teachers should have more responsibility in the classroom.*" Some

students said assuming responsibility for success depended on the type of exam – school-based or international testing. One noted that "*if it was a big test from outside of the school, I would feel a bit pressured and afraid, since the principal would be counting on me to bring a good grade.*"

Teachers lamented that the high-level tests were out of their control (i.e., imposed on them), and many felt disappointed when their students did not perform well. Some linked students' success to whether they liked their teacher or not, in effect blaming students if they did not succeed. Other teachers "*felt pressure from others to ensure that students perform to the best of their ability on high-stake tests.*" Teachers, exemplified by this quote, said "*high-stake testing holds teachers and schools accountable*" for students' success. Test results, in this perspective, reflect how well the school is performing more so than individuals or students collectively. Some teachers took on the responsibility of following through with the parents of low-performing students to see if issues at home or perhaps learning abilities may be factors. These teachers would subsequently try to change how they teach as a result of their follow-up.

Those parents who commented on this topic were split; some discussed that their children were responsible for success, with one parent commenting that "*when he does not perform well on a test, he decides to do better next time and move on; he tries to learn from his mistakes and not make them again.*" Other parents seemingly blamed the teacher, often for placing content on the exams that their child reported had not been covered in class. When students did not succeed on a test, some parents (as exemplified in this quote from a mother) "*support my daughter and tell her it is OK as long as she did her best and tries better next time,*" and, as with other parents, felt that she "*had more responsibility for her daughter's learning as she moves into high school.*"

### Causes and Sources of Pressure and Student Test Anxiety

Two sources of pressure and test anxiety were consistent mentioned by all groups of participants:

(a) classes covering tested content that could impact student grades, and (b) students' progression to the next grade level, especially high school, or changing schools. One student exemplified a main source of pressure: *"I am going into high school next year, so I feel nervous and worried about taking tests... High school grades are super important."*

Students also said, during regular periods in the classroom, they felt nervous about answering teachers' questions out loud and giving the wrong answer. They feared being embarrassed, mocked by peers, and looking inadequate in the teachers' eyes. These lingering emotions made them anxious about taking any test including high-stakes tests. Most students differentiated between anxiety leading up to the test and afterwards. Timing seemed to be a crucial variable. Many indicated growing pressure and anxiety in the week or few days before the actual exam. They expressed fear, lack of confidence, nervousness, concern and paranoia. Some said the subject matter exacerbated their anxiety (easy or hard subjects), and others differentiated between regular tests (unit or lesson) and "big" tests (mid-term, final, standardized) with the latter eliciting more anxiety.

Teachers discussed their observations of students leading up to the exam period. They tendered an array of observed student emotions and pre-exam reactions including (a) being overcome with anxiety with episodes of crying and fear; (b) expressing unreadiness, unpreparedness, and self-doubt; (c) going completely blank during mock exams; and (d) *"exhibiting more careful behaviour in the days leading up to the test"* meaning paying more attention in class and during homework and classwork correction. In preparation for exams, some teachers helped students with mock exams or practice tests. One teacher observed that *"confident students answered test questions without hesitation while introverted students were anxious and afraid to answer even if they knew the answer."* She was convinced this behavior pattern transferred directly into the actual testing experience.

Parents also commented on students' feelings about testing with some expressing concern that their child *"becomes very stressed and moody at*

*least two days before a test."* Some parents said their child waffled between being excited and happy about a test or sad and complaining. Their pre-test behavior was inconsistent. Another parent said her child would become frustrated before the test especially math, science and Arabic tests. Parents said their families were willing to help their children overcome anxiety by helping them study, find tutors as needed, and revise any resources or school materials.

Findings further suggested that pressure leading to test anxiety can come from various sources. Students identified deep and powerful pressures and emotions such as self-anger, self-imposed pressure (i.e., *"the principle is counting on me"*), self-doubt, and disappointment when they failed, even self-hatred and loss of value as a person. Teachers identified different pressure points. Some responses indicated that students may feel anxiety in reaction to pressure from teachers themselves. One teacher said she *"feels disappointed when her students do not perform well on a test."* This disappointment may be communicated to students directly or indirectly, although one teacher claimed that *"the students are not aware of the pressure the teachers are experiencing."* Teachers also said students feel pressure from their parents for high grades and marks; however, students did not identify this as a pressure point. Parents in this study did not offer noteworthy comments on the topic of feeling pressure around their child's tests or grades.

### Strategies for Dealing with Test Anxieties

All participants offered ideas about how to deal with test anxiety, but each category of participant took a different tactic. Students themselves said they would ask to sit the exam again (a make-up test), get help from parents when studying, ask teachers for practice and mock tests, repeatedly review course content before the test, start studying early, set aside emotions and focus on the intellectual side, and rely on their faith, i.e., pray. Their strategies were mainly pragmatic designed to increase the grade on the next test.

Conversely, parents and teachers tended to suggest that students get lots of sleep, rest, and a proper diet in the days leading up to any test.

Students did not identify these health-related strategies, although some said they listened to music, sat quietly in their room, or reached out to their families for support and diversion of negative feelings or to lessen the stress. Teachers also said they try to continually motivate and encourage students to be ready for tests and to bolster their confidence. Teachers often provided study guidelines for the tests. One teacher saw these sorts of activities as *“preparation for other challenges in life, so they are better able to handle pressure.”* Both parents and teachers referred to using strategies to *“try to calm down”* students and lessen anxiety. They recommended ways to minimize negative thoughts of perceived poor test performances (e.g., *“encourage him not to think about it”*), and move on or *“try to be more careful next time.”* However, exact coping strategies were not shared.

## Discussion

The findings reveal that there are clear indications of stress and anxiety due to high-stakes testing in all three categories of participant responses: parents, students, and teachers. However, the perceptions of the pedagogical context, responsibility for students' success, causes and sources of stress, and strategies to deal with test anxiety were quite varied for each participant category.

Parents in this study consistently indicated the need for a sense of balance for their children in their educational environment, stressing both the need for testing and academic enrichment along with extracurricular activities and authentic assessment for personal growth and active learning. Similarly, parents felt that the responsibility of students' academic success lies with students and their teachers with parents' guidance and support (e.g., getting enough rest and eating well) during high-stakes testing. In agreement with Simpson's (2016) study in American public schools, parents discussed the over emphasis of standardized testing and the increased need for collaborative and hands-on learning. Further, the parents emphasized the need for enhanced feedback strategies on assessment highlighting the recommendation in Mathis et. al's (2021) study for heightened

awareness on formative assessment to both inform the teacher and student on the students' academic progress. The authors posited that *“if done properly, formative assessment can “preview” the testing situation for students, which can reduce the stress symptoms for the actual summative or high-stakes testing. Consequently, well-prepared formative assessment can open a pathway to more accurate results of student ability”* (p. 139).

Perhaps the most prominent finding is the clear schism between students' and teachers' perceptions on major aspects of the four themes. For example, students perceived the pedagogical context as primarily teacher-centered while teachers described a student-centered classroom complete with participation, groupwork, and related constructive approaches. Students commented that material on their assessments was not covered in class and described mostly objective assessments while teachers described regular use of alternative assessment strategies such as research projects, testing only material covered in class, and thorough test reviews and feedback. As Al Hareth and Al Dighrir (2014) pointed out, feedback and assessment should be an important tool within the learning process, not only a result-focused one and *“should be embedded in classroom teaching”* (p. 890), which was not clearly perceived by the students. This apparent misunderstanding on the pedagogical context alone can lay the groundwork for teaching and learning paradoxes (between what is perceived as being taught and what is actually being learned) and increased stress and anxiety related to assessment.

Similarly, in the areas of responsibility for students' academic success (i.e., assessment performance) and sources of stress, students perceived that responsibility lies with themselves and their teachers or schools (for international or standardized testing) while teachers felt the test was *‘out of their control’*, pressure for students to succeed, and disappointment when students underperformed. Some teachers mentioned pressures from senior administration and the issue of school accountability. This finding concurred with Al-Rashidi's study (2018) on middle-school students in Kuwait that found that the most stress related to testing was school-related anxiety. It

also emphasized the students' acknowledgement of increased pressure and anxiety as students approach high school and increased standardized testing in concurrence with previous test-related studies conducted in Saudi Arabia (Alyami, 2018; Mathis et. al, 2021). As a notable mention, when discussing students' success, only the final end result or academic performance was discussed by participants. In other words, as Al Hareth and Al Dighrir (2014) also noted in their research, success, for the participants in the current study, was perceived as or equated to a high test score (the end result), not the actual student development in or learning of the subject matter.

In the theme of mitigating or dealing with stress anxieties, students focused on clear strategies to enhance their performance on the next tests (e.g., preview content more and earlier, set aside emotions, take practice exams) while teachers focused on general aspects of encouragement and motivation and using test anxiety as a means to prepare for the stress of their future daily lives. This is contrary to Butler's (2018) study in the US that found teachers' planning and instruction was strongly affected by testing and pressure for both teachers and students to perform well on the test. In this theme, another clear gap emerged as students were seeking practical coping strategies and mechanisms while teachers and even parents were focused on more general means of building confidence and "calming down" without teaching apparent strategies and techniques to do so. A plausible reason for this could be that teachers, parents, and students are unaware of practical strategies to deal with test-related anxiety, as indicated by Al Amryeen and Baioumy (2020) who recommended awareness sessions and practical information for stakeholders.

### Limitations

There were two main limitations encountered in this research: the sample size and interview access due to the COVID-19 pandemic. An increased number of participants representing each of the three categories, students, parents, and teachers, could help corroborate accounts presented in this study and provide increased credibility for the views expressed. Also, in-person interviews were not possible due to the pandemic and restrictions

on meetings and gatherings. Non-verbal cues and in-person interactions are an integral part of interviewing in qualitative research (Merriam, 2009), which could not be fully realized due to mandatory restrictions. To mediate this concern, all interviews were conducted on-camera to ensure accuracy and facilitate follow-up questions based on observed responses.

### Implications

As the findings of this research on stakeholders' perceptions of high-stakes testing in Saudi middle schools revealed, there is clear stress and anxiety perceived by middle school teachers, students, and parents in relation to assessment and high-stakes testing. There are also apparent discrepancies between the perceptions by participant category, with a notable gap between students and teachers, arguably the two main stakeholders in the teaching and learning process. It is then crucial to find common ground moving forward. While K-12 education often focuses on 'parent-teacher' conferences throughout the academic year to 'check-in' on their children's progress, these findings reveal a clear implication that there is a gap between student and teacher perceptions of what's happening in the classroom, views of assessment, and strategies to deal with the resultant stress and anxiety. Student-teacher forums and focus groups on learning approaches, means of assessment, and how the students actually perceive their learning experiences could facilitate better mutual understanding (Tornio, 2019).

Further, as recommended by Mathis et. al (2021), Al Amryeen and Baioumy (2020), Butler (2018), and Wisdom (2018), deeper understanding and informational sessions for key stakeholders on focused strategies to minimize test anxiety and the link between high-stakes testing and mental health could consequently reduce test anxiety leading to more accurate assessment and interpretation of academic performance. Particularly, shared strategies on how to prepare students for assessment (adequate feedback, practice, and at-home preparation involving parents as well) and techniques to calm anxious thoughts and positively view assessment (Nolting, 2000), especially before and during testing, should be

included as part of the educational process within the school/teacher's planning and instruction.

However, as indicated by this study's findings, these techniques and strategies will not be sufficient unless all key stakeholders are involved. While there was a notable rift between student and teacher perceptions in this study, the parents, in particular in the Saudi context which has highly embedded family values, are crucial stakeholders, not only for academic success but for supporting students' health outside of the classroom. Comments from parents, as reported in the findings, discussed strategies to deal with test anxiety in general terms and offered advice mostly about sleeping and a healthy diet but offered limited comments about specific strategies indicating possible unawareness of how to support their children's mental health during these stressful times. Thus, this study emphasizes the need and educational implication of involving the parents/guardians in the assessment preparation and process—not just through announcements of testing schedules and end results, but in evidence-based strategies to support their children in a healthy and productive way (Simpson, 2016; Al Amryeen & Baioumy, 2020) and taking the parents opinions on-board, particularly in the formative and preparatory part of assessment. This parent involvement and development could begin earlier, in primary school, and continue systematically throughout the students' academic career in K-12. As this and other studies conducted in Saudi revealed, early intervention in and consideration of the effects of testing is crucial for students (Alharbi, Alsuhaibani, Almarshad & Alyahya, 2019) as testing anxiety increases as students age and become more aware of the high-stakes involved (Mathis et. al, 2021).

Finally, the participants in this research indirectly define their notion of academic success. In their interviews, student success was most often equated with test performance, i.e., a one-off result that seemingly encapsulates all student learning. As posited by several researchers, including Butler (2018) and Al Hareth and Al Dighrir (2014), testing is one tool of assessment that should be embedded in the learning process, not the sole definer of student success and consequently determiner of their future, which has

been the case in the Saudi educational system (Al Sadaawi, 2010). Although, outside the exact scope of this research, this notable finding suggests that alternative assessments can not only have a role in the learning process as varied tools of assessment but as a means of more accurate, cumulative representation of student learning that could potentially redefine student success to key stakeholders as more than a test result.

## Conclusion

This study explored key stakeholders' perspectives on high-stakes testing in middle schools, grades 7-9, in Saudi Arabia. In-depth interviews with student, teacher, and parent participants revealed four recurring themes surrounding high-stakes testing: the schools' pedagogical context, perceived responsibility for students' success, sources of test anxiety, and strategies to deal with high-stakes testing. This study found that there is a clear schism between the stakeholders' perspectives, particularly students and teachers, on several aspects of assessments, including the context of student-centered or teacher-centered methods, students' perceived pressure to succeed and not disappoint their teachers and schools, and parents and teachers mention of general coping strategies for testing while students appear to be seeking concrete, focused solutions. Transparent conversations between stakeholders to find common ground that best supports student learning and accurate assessment, increased understanding of the concept and concrete strategies to deal with high-stakes testing, and alternative assessment solutions are recommended to close the gap, redefine, and facilitate accurate assessment.

Beyond the current study, recent research on the effects of high-stakes testing reviewed herein underscores the stress, anxiety, and over-emphasis of crucial teaching and learning time and effort dedicated to high-stakes testing for Saudi students, parents, and teachers, with often unknown long-term psychological effects and unclear results of performance and perceptions of student success. Through the viewpoints of key stakeholders, even in a relatively small sample frame, it is clear that such testing, particularly for elementary and young adolescent learners who cannot cope or completely understand stress, could lead to adverse effects and necessitates reconsideration. As mentioned, the authors, through this and previous research (Mathis et. al, 2021), seek to expand the discussion to decision-makers in Saudi education with the hope that possible alternatives to high-stakes testing can be investigated and

strategically implemented, ones that promote evidence-based results and learning as an imperative by-product of assessment within a healthy environment for all involved.

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## Appendix A

### Sample Student Interview Protocol

**I. Pre-Interview: Informed Consent is explained and signed before the interview proceeds by both student and guardian. Interviewer introduces herself, her educational background, and the purpose of the study.**

#### II. Interview

A. Participant Demographics and School Background:

1. Participant Name/Gender
2. **Age:**
3. Grade:
4. School and Location/ City of School:
5. City of residence/ With whom do you reside?
6. Which stream (if applicable):
7. How many lessons/classes do you have a day?

B. Interview Questions and Scenarios.

1. Describe a typical lesson in one of your classes? Which class?
2. How does your teacher check for your understanding usually in class (asking questions, worksheets, calls on you individually, goes up to the board)?
3. When the teacher asks you individually to confirm an answer, for example on a worksheet, how does that make you feel?
4. Do you ever feel afraid to give the wrong answers in class?
5. Do you worry when you miss lessons (sick or appointments) that this may affect your grades?
6. How many tests do you usually have in a semester per class? What are they? (unit, midterms, finals, etc.) In how many of your classes?
7. How do you feel when the teacher/school is announcing the exam dates?
8. How do you feel when you are on your way to school for exams?
9. How do you feel the days before a test? Right before a test?
10. Which tests do you feel are very important for you to do well in? (high stakes or 'big' tests) Why?
11. Do you feel differently before those tests? How and in what way?
12. Do you feel prepared for these 'big' tests?
13. Do you often feel that the tests match the information and practice in class? In other words, do your tests actually test what you are learning? In what ways—yes or no?
14. How do you prepare yourself mentally for these tests?
15. What if you don't do as well as you had hoped for? How do you feel and deal with that feeling?
16. How do you feel at the end of the year about moving to the next grade level? What about going into high school? What are the ideas about the next level?
17. Do you think testing should be done differently in your school? If so, how? How would you want to be tested if you had a choice?

### **III. Post-Interview**

**Follow-up with transcribed interview and/or follow-up questions to clarify responses and send transcript of interview to participants for review.**