



## “Miracle Examination Centres” as hubs for malpractices in Senior Secondary School Certificate Examination in Nigeria: A systematic review

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### ABSTRACT

Certificates obtained after taking Senior Secondary School Certificate Examinations (SSCE) are priority documents that qualify students to be admitted into tertiary level education and are also a minimum requirement to contest in some political elections in Nigeria. ‘Miracle’ Examination Centres (MECs) are rogue/corrupt business outfits that position as regular schools/examination centres, but in reality deploy deviant means to secure unmerited SSCE results/certificates, and hence undermine academic integrity and country-wide development. In these rogue centres, candidates can acquire unmerited desirable grades across subjects taken in SSCE, hence the ‘miracle’ commonly ascribed to such centres in Nigeria. This paper deploys a systematic review of Nigeria-focused exam malpractice literature to explore the drivers that facilitate the establishment and spread of MECs as well as interventions that can be used to eliminate them. Identified documents that met inclusion criteria (94: 48 non-traditional academic and 46 traditional academic publications) were retrieved and reviewed. Proximate drivers of MECs involve the actions and inactions of certain actors that are within immediate reach of influence and at grassroots, such as parents, community-based groups, and schools (school owners, principals, teachers, students, etc.). Remote drivers are the actions and inactions of the examination bodies and regulatory institutions that allow MECs to thrive. We consider the remote drivers to be away from immediate reach of influence as shown in our conceptual framework. Therefore, addressing the challenge of MECs by focusing on proximate drivers, appears to be feasible within the short and mid-terms, unlike the remote drivers.

### 1. Introduction

To show completion of secondary education in Nigeria, one is required to have O-Level results, which are obtained from taking examinations conducted by the West Africa Examination Council (WAEC) and/or the National Examinations Council (NECO). Both examinations in Nigeria are normatively referred to as WAEC and NECO or the Senior Secondary School Certificate Examination (SSCE). They are administered by accredited secondary schools with the approval of the examination bodies and education regulatory institutions. There are similar examinations obtainable in Nigeria, which are conducted by the Joint Admission and Matriculation Board (JAMB) and National Business and

Technical Examinations Board (NABTEB). However, possession of WAEC and NECO certificates are the foremost evidence to attest to the completion of secondary education (Adeshina et al., 2014; NECO, 2015). Having (an) SSCE certificate(s) with at least credits in core subjects is often a compulsory requirement for admission into tertiary institutions in Nigeria. SSCE certificates are also requested before one is offered a job or qualifies to benefit from any opportunity, including seeking a political office (Odidi, 2014). Thus, the premium placed on the SSCE certificate stimulates many examination candidates to engage in desperate and corrupt attempts to compromise the integrity of the examination, by perpetrating different forms of malpractice to unduly secure favourable grades (Aworinde, 2015a). In some schools, the cheating process is now

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institutionalised, such that they have grown notorious for examination malpractice, so much that these schools have a reputation among the public as a one-stop solution for success during SSCEs. Hence, schools that facilitate cheating are commonly known as “miracle examination centres” (MECs) or special centres, since they could even deliver *excellent* results to candidates who have very poor literacy skills (Aworinde, 2015a; Onyedinefu, 2019).

Nigeria's education system currently ranks number 124 out of 140 countries globally, making the country to be among the poorest performers in education (World Economic Forum, 2019). Examination merit and integrity are part of the indicators of a well-performing education system. The popularity of examination malpractice facilitated by MECs and its resulting consequences on Nigeria's education system which reflect in the reduction of the competence of human resources and perpetuation of unfairness, have resulted in the emergence of interventions to deal with the issue (Atueyi, 2019; Belo-Osagie, 2017). Government authorities and examination regulatory bodies have responded in various ways to the problem of endemic examination malpractices which MECs have gone ahead to institutionalise. A foremost intervention to promote examination integrity in Nigeria is the 1999 Examination Malpractice Act (Federal Republic of Nigeria [FRN], 1999) which criminalizes examination malpractice and specifies jail terms and fines for offenders. Also, examination regulatory bodies, state ministries of education, and the National Examination Council (NEC) enforce sanctions in the nature of blacklisting centres notorious for examination malpractice and also cancelling/withholding results of candidates suspected to have engaged in examination malpractice in those centres (Akintunde and Selzing-Musa, 2016; Animasahun, 2013; Raji and Okunlola, 2017). Exam bodies have also been reported to identify and bar offenders from writing the examinations for some years (Oduwole, 2013). Despite these measures, reports of examination malpractices are replete in the Nigerian media (Anzene, 2014; Asomba, 2012; Ibrahim, 2014). An undercover report by Aworinde (2015a) showcased graphic details of a typical MEC in Nigeria. Typically, several colluding actors (e.g. security operatives, external examiners, teachers, principals, school owners, etc.) drive the examination fraud in these centres. MECs have indeed evolved into a form of organised crime group that involve a group of corrupt syndicates who pervert the examination system/processes for their private gains. There is need for a systematic approach to address examination malpractices during SSCEs.

Corruption is a serious worry that slows the achievement of development goals in Nigeria. Transparency International (2021) corruption index ranks Nigeria 149th out of 180 countries, with a performance score of 25 of 100. Several studies on corruption in Nigeria report that corruption is rife across different sectors in the country (Agwu et al., 2020; Khan et al., 2019; Onwujekwe et al., 2020). A recent survey listed Nigeria's education sector among the top-five most corrupt sectors in the country (Socioeconomic Rights and Accountability Project [SERAP], 2019). Overall, the activities of MECs reflect corruption- the abuse of entrusted powers for private benefits by the school owners, principals, examiners, teachers, etc., hence these unwholesome practices qualify as corruption (Hoffman and Patel, 2017; Transparency International, 2020). An effective anti-corruption mechanism is needed to tackle the problem of MECs in Nigeria. The aim of this paper is to collate and report the diverse literature exploring the drivers of MECs. We hope that our output will help stakeholders including researchers and policymakers who are interested in fighting back the problem of examination malpractice and specifically the operation of MECs to understand and navigate the problem.

The anti-corruption evidence [ACE] approach (Khan et al., 2019) fosters a non-conventional, evidence-based approach to engaging and solving corruption problems in developing contexts. ACE advocates a bottom-up approach of engaging corruption and recommends a deep understanding into specific corruption problems, revealing the key actors as well as the rent-seeking activities that drives specific types of corruption. Systematic reviews are a useful tool in gaining up-to-date

understanding into a topic area by accessing and evaluating all evidence available towards answering a specific research question (Mallett et al., 2012). Conducting a systematic review will be beneficial to understanding and engaging MECs because it will enable a systematic and comprehensive exploration on the subject matter, which should set the pace for future studies and intervention plans. To proffer an effective plan for interventions, we classify drivers as proximate and remote. By proximate drivers, we mean those that are within the remit of the grassroots (school owners, students, teachers, principals, faith-based groups, community-based groups, and parents), as against those (remote drivers) beyond the grassroots (examination bodies, media, and government institutions). Governance challenges in Nigeria, especially issues of corruption, state capture and bureaucratic bottlenecks could make those in the latter quite difficult to approach, implying that galvanising them toward actions might prove difficult. Whereas, those at the proximate level could be the start-point in commencing campaigns against MECs because they could be easily reached and galvanised to take incremental actions. They could in turn attract the attention of those at remote levels to act. No doubt that improving examination integrity in Nigeria will in turn improve the rating of the country's education sector and advance the competence of the country's human capital.

## 2. Methods

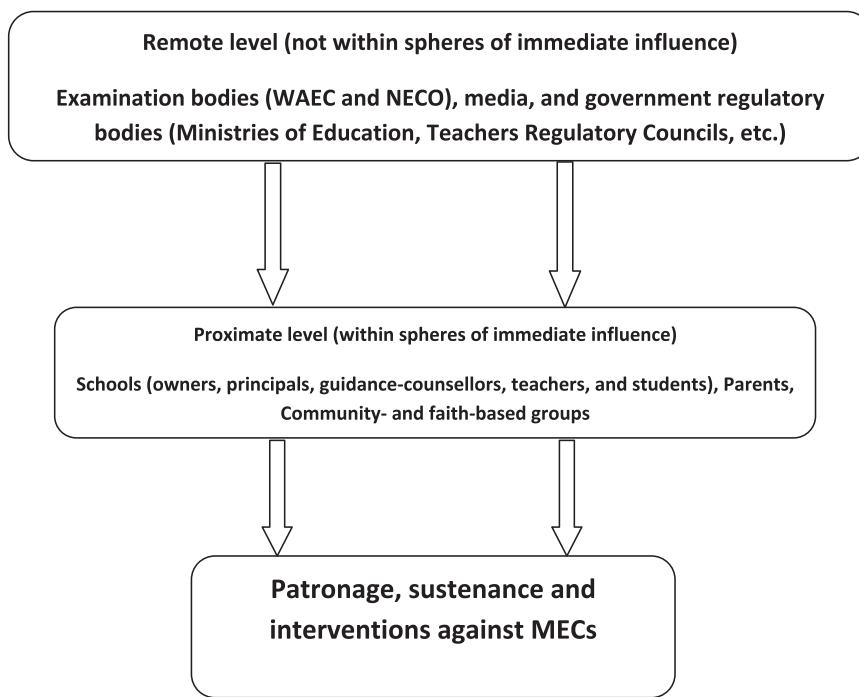
### 2.1. Conceptual framework

We brought together insights from two anti (corruption) conceptions from Khan et al. (2019) and Osipian (2009). Osipian describes that corruption in an education system flows from two levels: the vertical level where hierarchical structures and centralised systems propagate corrupt practices such as embezzlement of education funds and fraudulent admission processes. On the other hand, horizontal level corruption manifest in parallel structures and actors including grassroots institutions and agents of socialisation such as families, faith-based groups, communities, schools, etc. Osipian identified corrupt practices such as bribery, favouritism, nepotism, abuse of discretionary power etc. to be the types of corruption that manifest in the horizontal level. Osipian suggests that both vertical and horizontal level corruption force actors to act in predictable ways to try to attain a stable system, yet both levels of corruption ultimately erodes the education system. Conversely, Khan et al. (2019) in the ACE framework considers that the most feasible point of action in an anticorruption campaign is to target actors and processes at the horizontal levels. This is especially important for developing countries where rules are barely followed or selectively applied. In this study, we decided to refer to all actions and inactions perpetrated by actors at grassroots (akin to the horizontal level) to sustain the thriving of MECs as proximate drivers. While those that occur at the level of formal authorities as remote drivers (similar to the vertical level). We corroborate Khan and colleagues that it is more feasible to target interventions at the proximate or horizontal levels, than those at the vertical or remote levels. Fig. 1 below provides a summary of the conceptual framework. The figure demonstrates the closeness of actors and processes to the actual patronage and facilitation of examination malpractice in MECs.

### 2.2. Literature search strategy

#### 2.2.1. Eligibility criteria

Studies were included if they fully or partly focused on examination malpractice in Nigeria. We also examined documents to see if they specifically highlighted issues around miracle examination centres or special centres. Studies were excluded if they did not focus on Nigeria, or focused on tertiary level education malpractice or malpractices elsewhere within or outside the education sector in Nigeria.



**Fig. 1.** Conceptual framework showing proximate and remote drivers of MECs and their spheres of influence.

#### 2.2.2. Information Sources and Search strategy

A systematic review was adopted to identify and evaluate drivers and interventions against MECs vis-à-vis examination malpractice in Nigeria. Search terms were generated with the aid of Boolean operators ("and", "or", etc., appearing between keywords). Boolean operators are proven strategies to aid systematic review search because they make the searches to be more precise (Sayers, 2008). Our key words and the application of Boolean operators are presented below:

(("Cheating" OR "Exam malpractice" OR "Examination malpractice" OR "malpractice" OR "corruption") AND ("Special Centres" OR "Miracle Centres" OR "Special examination centres" OR "Miracle examination centres" OR "Private schools") AND ("WAEC" OR "NECO" OR "WAEC GCE" OR "NECO GCE" OR "GCE" OR "JAMB") AND ("Nigeria") AND ("Edo" OR "Kogi" OR "Rivers" OR "Lagos" OR "Abuja" OR "Benue" OR "Abia" OR "Enugu" OR "Kaduna" OR "Kano" OR "Oyo" OR "Anambra" OR "Kwara" OR "Imo" OR "Plateau" OR "Delta" OR "Ondo" OR "Osun" OR "Borno" OR "Akwa Ibom" OR "Cross River" OR "Taraba" OR "Adamawa" OR "Sokoto" OR "Zamfara" OR "Bayelsa" or "Nasarawa" OR "Bauchi" OR "Ebonyi" OR "Ekiti" OR "Gombe" OR "Jigawa" OR "Katsina" OR "Kebbi" OR "Niger" OR "Ogun" OR "Yobe")).

We searched several search engines and academic databases including Google, Google Scholar, DOAJ, ScienceDirect, Web of Science, Hinari, ResearchGate, and Scopus. At the end of an exhaustive search, we retrieved, screened, and reviewed documents that met the inclusion criteria.

#### 2.2.3. Selection process

Four of the authors participated in the systematic literature search using the same Boolean operator search terms and covering the same databases described above. The researchers worked independently in searching through literature to identify and sieve through articles. They later came together in series of research meetings to harmonise articles/documents that were retrieved. The title, abstracts, and first two paragraphs were read thoroughly for the screening of the relevant literature. Traditional and non-traditional academic literature were retrieved if they met inclusion criteria, which include: (1) written in English Language; (2) within the timeframe of 2010 – 2020, although seminal or landmark literature was an exception; (3) discussions that concern the

causes, drivers, and interventions against MECs vis-à-vis examination malpractice during WAEC and NECO.

#### 2.2.4. Data collection process

A thematic synthesis of each retrieved article was independently done using Microsoft Excel spreadsheet by each of the 4 researchers who scoured through literature. Each article/document was screened in the thematic areas for actors and processes driving the corruption (specifying proximate and remote drivers), as well as corresponding horizontal and vertical interventions. However, other characteristics of the materials retrieved included methodology used in articles, area of focus (particular state, regional or national), type of examination that was the focus (WAEC, NECO etc.), the nature of exam malpractices that was described, drivers of the examination malpractice and MECs, gender dynamics, effects of examination malpractice/MECs, stakeholders that can pursue change. Data for each of these thematic areas were entered in distinct columns against the author(s) who reported them. Each of the 4 reviewers kept track of the literature search and retrieval process. Each researcher also provided independent descriptive reports of the findings in each thematic area.

#### 2.2.5. Analysis and synthesis

Working in pairs, the 4 researchers sat over several research meetings to harmonise the spreadsheets, combing through retrieved articles, seeking and merging repetitions as well as accommodating findings that may have been omitted by each researcher. The final 2 sets of excel sheets were subsequently merged, using the same process to produce a final spreadsheet that contained all identified literature. All the researchers cross-checked the final spreadsheet to ensure nothing was missed. The descriptive reports were also merged into one narrative. Again, all the researchers took turns in reading and vetting the narrative of the findings.

After the thorough screening, 94 documents met the inclusion criteria, comprising 48 non-traditional academic literature and 46 traditional academic literature. All retrieved literature received equal attention in scrutiny.

### 3. Results

The process of identifying and reviewing articles are contained in a process flow chart in Fig. 2.

#### 3.1. Overview of studies included

Findings from our systematic review show that MECs are dominantly private schools that position to profit from perpetrating examination malpractice during SSCEs. We identified variant actors and conditions that propagate the corruption embodied in MECs as well as recommended interventions to tackle the problem. Evidence suggests a collusion among security agents, invigilators, supervisors, students, and parents was also reported (Onuka and Durowoju, 2013). There was little evidence of interventions that were implemented, and this prevents the analyses of what works and in what contexts. We describe in detail the drivers of MECs, as proximate and remote. We also present their corresponding interventions.

#### 3.2. Drivers of MECs and interventions

##### 3.2.1. Proximate drivers of MECs

Proximate drivers of MECs are grassroots actors or societal processes that give rise to, or propel either the establishment or the sustained patronage of MECs. Proximate drivers represent activities that often do not involve active participation of government authorities/officials or the examination bodies. By proximate drivers actors we refer to students, schools, faith-based groups, community-based groups, and parents who are also stakeholders in the educational system, and whose activities contribute to the establishment and sustenance of MECs.

From the students, drivers such as a decline in study habits, peer pressure and pressure from parents to pursue disciplines or courses perceived to be more prestigious, increase the patronage of MECs where it is possible to get desired results without commensurate hard work (Akintunde and Seizing-Musa, 2016; Jimoh and Omorogie, 2012; Njoku and Njoku, 2016). Parents tend to reinforce these drivers among students, as they coerce their wards into disciplines not matching their aptitudes and capacities. Students, in a bid to meet the expectations of their parents, and to avoid being viewed as failures, register in MECs

that usually guarantee examination success. Students also convince or lure their parents/guardians to register them in MECs. On the other hand, parents in a bid to secure desired future career for their wards, or to avoid repeated payments for the examinations, or even to shield themselves from the taunts of neighbours as parents of children who cannot pass the SSCE, register their wards in MECs (Anzene, 2014; Ojogbane and Amali, 2016).

Also, peer influence was implicated as a driver of MECs. Peer influence were reported to lead students to truancy and consequent poor academic confidence and achievement. Deviant students then influence each other to seek remedy in MECs and convince their parents to fund the registration. Peers within a school could come together to secretly bribe examiners without the knowledge of school authorities, and in the event of success, pass on the culture to subsequent student cohorts that sit for examinations in that school (Asadu and Abonyi, 2020). A similar experience is sustained by some teachers and principals who turn schools that employ them into MECs without the knowledge of the school owners. Agbedo (2015) recounts a case in Lagos State, where a school owner was unaware and shocked at the intensely organised SSCE malpractice by employed administrators, in her school. She reportedly sacked the school's principal after the revelation. Teachers and principals who facilitate examination malpractice often complain about poor wages by their schools and so deploy devious means to increase their earnings (Adeniran et al., 2020; Udo, 2013).

Some schools operate a performance-based system where the promotion and retention of teachers are tied to cumulative SSCE performance (Jokthan, 2013). Teachers in such schools therefore seek ways to influence/bribe supervisors from the examination bodies to allow students to cheat during examinations. Teachers seeking to influence student scores may even follow-up to identify and influence the scoring and grading of examination scripts to ensure that the candidates get good grades so they could preserve their jobs.

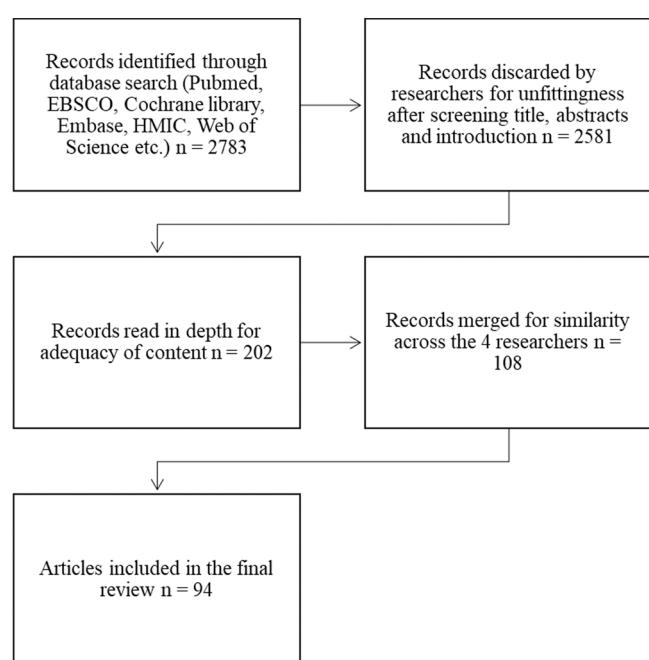
In Nigeria, it is against the rules to admit a new student into the final year class (Senior Secondary [SS] class 3). To prevent suspicious migration of students, schools hosting SSCEs are required to submit Continuous Assessment Scores (CAS) for their students to WAEC for 2 consecutive years before they are due to write SSCE in the school. Yet, some schools admit and register new students into the final year class, even when they cannot account for the Continuous Assessment Scores (CAS) of the students in preceding classes (SS 1 or 2). As such, the new school provides forged CAS for the candidate which is a prerequisite to sit WAEC or NECO examinations (Belo-Osagie, 2017). Evidence reveals that schools known for admitting candidates just close to when they are to sit SSCE are usually MECs (Okoye and Onwuzuruoha, 2020).

Communities where MECs site their schools sometimes provide support to MECs through patronage, referrals, refusal to report to authorities, and younger community members aligning with candidates who threaten the lives of uncompromising examiners (Adegoke, 2010; Asadu and Abonyi, 2020). Hence some communities hosting MECs tacitly facilitate the perpetration of the corruption.

##### 3.2.2. Interventions against proximate drivers

The Parents and Teachers Association (PTA) is an organised body in Nigeria with presence at national, state, and facility levels and was identified to hold potentials to address educational challenges across schools, including examination malpractice. Alhassan (2017) suggested that the PTA platforms could be used to influence parents to be more constructively involved in the education of their children. Hence PTA platforms in schools could be used to discourage students and parents from patronising MECs (Adeniran et al., 2020), by facilitating sensitisation and counselling programmes with parents and students through school counsellors or rule-following school administrators.

Owners and administrators of schools were suggested to become more involved in their schools and revise policies that facilitate examination malpractice, such as teacher promotion being tied to SSCE performance (Agbedo, 2015; Jokthan, 2013). Alternative (non-SSCE based)



**Fig. 2.** Process flow chart for the identification and review of records.

means of assessing teacher performance such as student ratings and improved transparent welfare schemes for teachers was suggested as a way of reducing organised malpractice (Gbago, 2011). Teachers may also be required to produce and agree to ethical practices and consequent sanctions in the event of a breach.

Faith-based and community-based groups were identified to have potentials to address proximate drivers of MECs. There are evidence that moral/religious teachings inspired people who obtained their SSCE qualifications through dubious means to return and denounce their certificates and desist from further indulgence (Atueyi, 2019). Therefore, religious clerics can contribute to strengthening education in Nigeria by encouraging obedience to laws and best practices. Community leaders can as well join in the campaign by encouraging their youths to be law-abiding, engage MECs around them on best practice, and blow the whistle where it becomes necessary (Schroepfer, 2016). See Table 1 for a summary of proximate drivers and interventions against MECs.

### 3.2.3. Remote drivers of MECs

Remote drivers are operational among the examination bodies and the government. They are usually complex to address because of the power dynamics around them. Okoye and Onwuzuruoha, (2020) reported that examiners/supervisors deployed by the examination bodies to administer and monitor examinations could demand for bribes from school owners, and school owners may offer bribes to the officials to allow cheating in SSCEs. MECs utilise this arrangement to ensure that their clients freely cheat and get desirable results. Officials from the examination bodies were reported to engage in irregularities such as using their influence to help leak questions to MECs ahead of the actual time for the examinations, turn blind eyes when students and teachers compromise the examination process at the examination venues, assist in tracking markers of the scripts, and using their powers to cover the MECs from being identified or sanctioned (Duvie and Eluwa, 2016).

Examination bodies were reported to have inherent practices/processes that enable organised cheating. Examination bodies rely on ad hoc staff, who are only recruited and paid for their services during the examination period, and public school teachers, who are often poorly paid, are often recruited to serve as supervisors (Atueyi, 2019). Ad hoc staff may feel less committed regarding examination integrity and often consider the examination period an opportunity to pursue additional earnings (Atueyi, 2019). Additionally, MECs are often located in hard-to-reach areas so that it will be difficult for monitoring/supervising officials to access them (Zakka, 2014). Also, allowing a particular examiner in a location over a long period of time breeds familiarity which could also undermine the examination process (Jokthan, 2013). The absence of regular unannounced visits to examination centres by senior examiners means the absence of a good check on the conduct of the examiners in these centres (Jokthan, 2013).

Examination bodies are yet to enforce a transparent system of checking the CAS of candidates.

MECs are notorious for fictitious inflation of CAS of the candidates that register with them, and they have carried on with this system for a long time with bare enforcement of caution by the examination bodies (Oyibei et al., 2015).

Informal business outfits, popularly called tutorial centres because of their niche focused on offering tutorial services for candidates preparing to undertake SSCEs, were identified to play roles in linking candidates to MECs (Aworinde, 2015a; Blueprint, 2019a; Udoh, 2011). Tutorial centres operate within the frame of small and medium scale enterprise and offer extramural services for students intending to take SSCEs or other nationwide/international examinations. Candidates go to tutorial centres for extramural lessons, and some teachers use this means to make some extra income for themselves. In the process, candidates are referred to centres where they are promised to acquire excellent results. Sometimes, the teachers from the MECs are in these tutorial centres poaching candidates to their schools, knowing fully well that the more candidates they can get, translate into more money for them.

**Table 1**  
Summary table on proximate drivers and interventions.

Proximate Drivers of MECs	Key Actors at the proximate level	Grassroots interventions	Key actors to drive interventions at the grassroots level
Competition to retain students because of economic gains (Atueyi, 2019; Asadu and Abonyi, 2020; Aworinde, 2015a; Omoniyi, 2019; Oyibei et al., 2015; Asadu and Abonyi, 2020; Boris and Awodun, 2012; Boris and Awodun, 2012; Igwe et al., n.d.; Aderogba, 2011)	School owners (Atueyi, 2019; Asadu and Abonyi, 2020; Aworinde, 2015a; Omoniyi, 2019; Jokthan, 2013; Onyibe et al., 2015; Asadu and Abonyi, 2020; Boris and Awodun, 2012; Boris and Awodun, 2012; Igwe et al., n.d.; Aderogba, 2011)	Rewarding schools and students with credible results (Adeyemi, 2011; Belo-Osagie, 2015) Ensuring that adequate and competent teachers are recruited (Osadebe and Bini, 2018; Aworinde, 2015b; Obidoa et al., 2013)	Parents Teachers Associations (Yunus, 2019; Alhassan, 2017) Religious Bodies (Aderogba, 2011; Onyibe et al., 2015) University administrators (Aworinde, 2015a) CSOs (Fapohunda, 2015)
Corrupt invigilators (Kawugana and Woyopwa, 2017; Asadu and Abonyi, 2020)	Invigilators (Kawugana and Woyopwa, 2017; Asadu and Abonyi, 2020)	Employ/encourage professional counsellors and social service professionals to tackle malpractice and related drivers (Ojogbane and Amali, 2016; Anzene, 2014; Animasahun and Ogunniran, 2014; Gbagolo, 2011; Aworinde, 2015b; Obidoa et al., 2013; Anyamene et al., 2015)	Guidance and counselling units (Ojogbane and Amali, 2016; Anzene, 2014; Animasahun and Ogunniran, 2014; Gbagolo, 2011; Aworinde, 2015b; Obidoa et al., 2013; Anyamene et al., 2015; Ojogbane and Amali, 2016; Emiloju and Adeyoju, 2012; Animasahun and Ogunniran, 2014; Gbagolo, 2011; Alhassan, 2017; Aderogba, 2011; Anyamene et al., 2015)
Pressure from peer group to register in MECs (Njoku and Njoku, 2016; Jimoh, 2009; Anyamene et al., 2015)	Parents (Petters and Okon, 2013; Adegoke, 2010; Akintunde and Selzing-Musa, 2016; Blueprint, 2019c; Anabogu et al., 2016)	Parents (Petters and Okon, 2013; Adegoke, 2010; Akintunde and Selzing-Musa, 2016; Blueprint, 2019c; Anabogu et al., 2016)	Community leaders (Schroepfer, 2016)
Pressure from parents to register in MECs (Adegoke, 2010; Akintunde & Selzing-Musa, 2016; Blueprint, 2019c; Anabogu et al., 2016)	Students (Animasahun, 2013; Obidoa et al., 2013; Petters and Okon, 2013; Orji et al. n.d.)	Improving involvement of parents and family in education (Yunus, 2019)	School Owners (Osadebe and Bini, 2018; Aworinde, 2015b; Obidoa et al., 2013)
Non-coverage of syllabus by teachers (Udoh, 2011; Udoh, 2013; Joshua et al., n.d.; Adeniran et al., 2020; Petters and Okon, 2013)	Teachers (Udoh, 2011; Udoh, 2013; Joshua et al., n.d.; Adeniran et al., 2020; Petters and Okon, 2013)	Involving religious bodies in the campaigns against MECs (Aderogba, 2011; Oyibei et al., 2015)	Students (Omoniyi, 2019)
Imposition of subjects and career path on students by their parents (Petters and Okon, 2013)	School owners demanding principals to be upright (Adegbede, 2018)	Regular workshops and sensitisation of students on examination malpractice (Tyokya, 2016)	
Student laziness and poor studying habits (Animasahun, 2013; Obidoa et al., 2013; Petters and Okon, 2013)	Universities to tighten screening to detect those who come in via malpractice (Aworinde, 2015a)		
	CSOs e.g. Exam Ethics Marshal petitioning anticorruption arms		

(continued on next page)

**Table 1** (continued)

Proximate Drivers of MECs	Key Actors at the proximate level	Grassroots interventions	Key actors to drive interventions at the grassroots level
Orji et al. n.d.) Promoting teachers on the basis of student's performance (Jokthan, 2013)	e.g. Police, Economic and Financial Crime Commission, Independent Corrupt Practices Commission, Nigeria Security and Civil Defence Corps, and Ministry of Education (Fapohunda, 2015) Community leaders encouraging whistle blowing against MECs (Omoniyi, 2019)		

MECs were also reported to adopt internet and mobile communication technologies to facilitate examination malpractices in their centres (Danbaba et al., 2018; Onyibe et al., 2015; Ugwu, 2019). Aworinde (2015a), narrated how answers to questions are available on some websites or shared through short message services (SMS). Other drivers that concern the efforts of the government (agencies) include, the usual non-employment of social service professionals, e.g. guidance-counsellors, etc., by schools, to assist with preserving moral standards and counselling of both staff and students; the dearth of infrastructure that is supportive of learning in schools; weak monitoring of private schools; naming and shaming schools that indulge in examination fraud; amendment and full enforcement of the examination malpractice act, and an overloaded or discrepancies in teaching and examination curriculum (Atueyi, 2019; Dungurawa, 2015; Fapohunda, 2015; Gbagolo, 2011; Njoku and Njoku, 2016; Kawugana and Woyopwa, 2017; Udo, 2011).

Researchers commonly identified decline in societal values as a driver of MECs and examination malpractice in general (Adegoke, 2010; Asadu and Abonyi, 2020). This has affected students' genuine commitment to hard work and slacks in following laid down rules and guidelines. MEC was conceived as a fallout of a deteriorating value system (Aworinde, 2015b).

### 3.2.4. Interventions against remote drivers

In some of the reviewed literature, we found evidence of diverse measures that have been put in place to checkmate the activities of MECs. The National Assembly in Nigeria which is the legislating arm of the government, summoned examination bodies, and charged them to take actions to improve examination integrity, enforce bans of MECs and as well stiffen sanctions against defaulters of the Examination Act (Asomba, 2012; Atueyi, 2019; Odunsi, 2019). However, legislative bureaucracies could make the process of having the National Assembly to act on the MECs slow and difficult. Also, influencing the legislature to act on issues would require pressure from influential people or some sort of public agitation. A typical example happened in 1977 and 1981 when the National Assembly was forced to call WAEC to dialogue (Atueyi, 2019). The immediate subsequent years of 1982 and 1983 saw some sense of credibility return to the examination system (Atueyi, 2019).

There were also reports of cancellation, ban, or blacklisting of complicit schools and their agents by examination authorities (Atueyi, 2019; Blueprint, 2019a; PM News, 2019). However, the process of sanctioning a defaulting school is reported to be complex/difficult and often entails the coming together of various stakeholders under the

National Examination Council (NEC) (Ibrahim, 2014). There are concerns about the ripple effects of such decisions, especially on the hard-working/rule-following students who find themselves writing in such centres. Hence, it is expected that the government name and shame erring schools to prevent continued registration in such examination centres (Belo-Osagie, 2015; Fapohunda, 2015). Unfortunately, the practice is still government announcing the statistics of erring schools without disclosing their identities as they should. The reason the government takes the posture calls for more investigation. However, there is an exception when investigative journalists release undercover reports and clearly mention the names of erring schools (Aworinde, 2015a, 2015b).

Additionally, there are recommended interventions that mentioned government helping with curriculum revision and decongestion (Agbo, 2020; Dungurawa, 2015); issuing directives to the Ministry of Communication, and telecommunication firms on the need to clamp on websites that support examination fraud, and to also distort internet and mobile communications around examination avenues during the periods for examinations (Aworinde, 2015a; Zakka, 2014). Recommendations in literature also included that the government should staunchly instruct security operatives to desist from being accomplices to examination frauds (Njoku and Njoku, 2016). Some studies suggest that rule-following schools should be incentivized and tutorial centres should be strictly monitored (Amake, 2019; Njoku and Njoku, 2016).

The Joint Admission and Matriculation Board (JAMB)- a popular examination body that conducts examination and regulates admission into tertiary education in Nigeria has adopted the use of Closed-Circuit Television (CCTV) devices to monitor for malpractices during their examinations (Atueyi, 2019). CCTV devices are connected to a central station from where examination centres are monitored. One article reported that an examiner was caught on the camera making sexual advances to a candidate in the hall (Belo-Osagie, 2017). The use of CCTV is not applied during WAEC and NECO, but its adoption has been suggested in literature. Ewuzie (2019) suggested that CCTV could be made part of the requirement for institutions that host SSCE examinations just as existing requirement such as functional laboratories, perimeter fences, etc. are required before they are approved.

Investigative journalism was also used to expose to the public, centres that are notorious for examination malpractice (Aworinde, 2015a; Damilola and Oladapo, 2020). The compelling undercover report by Aworinde (2015a) forced the Lagos State government to delist the complicit school, especially after the Exam Ethics Marshall (a civil society organisation [CSO]) on the premise of the report petitioned the government to take action (Aworinde, 2015b; Fapohunda, 2015). Although there is no evidence to show that anti-exam malpractice clubs or societies in schools will increase examination integrity, there are recommendations in literature to have them in schools and that they can also be part of the community development services of the National Youth Service Corps (NYSC, a mandatory nationwide service programme, for graduates below the age of 30) members (Emiloju and Adeyoju, 2012). See Table 2 for a summary of remote drivers and interventions against MECs (Table 3).

## 4. Discussion

We aimed to conduct a systematic review of literature to explore the nature and drivers of MECs in Nigeria. Studies across retrieved literature suggest that examination malpractice in general and MECs in particular are common in Nigeria. In Nigeria, MECs thrive by deploying diverse means to perpetrate examination malpractice to secure unmerited certificates for students/their clients. Indeed, we noticed that Nigerian studies are overrepresented in the examination malpractice literature but we found paucity of core academic literature on MECs. However, the dominance of Nigeria-related literature is evidence of the scale of the problem of examination malpractice in the country, as well as concerns/interests to improve the situation. It is also important to notice that the

**Table 2**

Summary table on remote drivers and interventions.

Remote Drivers of MECs	Key Actors at the remote level	Interventions	Key actors to drive interventions
Weak education sector (Danbaba et al., 2018)	Examination bodies (Okoye and Onwuzurroha, 2020).	Inclusion of social service professionals e.g. guidance-counsellors (Tyokya, 2016; Tyokya, 2016; Ojogbane and Amali, 2016; Yunus, 2019)	NOA (Information Nigeria, 2012)
Moral decadence (Njoku and Njoku, 2016; Jimoh, 2009; Jimoh and Omorogie, 2012; Okpe and Lar, n.d.; Emiloju and Adeyoju, 2012)	Government Supervisors to schools (Jokthan, 2013)	Ensuring adequate and competent teachers are recruited (Osadebe and Bini, 2018; Aworinde, 2015b; Obidoa et al., 2013)	Government Supervisors at ministries of education (Jokthan, 2013)
Emphasis on certificates (Adegoke, 2010; Blueprint, 2019d; Jokthan, 2013; Odidi, 2014; Udo, 2013; Joshua et al., 2013; Obidoa et al., 2013; The Nation, 2018; Petters and Okon, 2013; Jimoh, 2009; Anagbogu et al., 2016; Animasahun and Ogunniran, 2014; Igwe et al., n.d.; Asadu and Abonyi, 2020)	Poorly regulated tutorial centres (Aworinde, 2015a; Blueprint, 2019a; Udo, 2011).	Ensuring that adequate facilities are installed (Osadebe and Bini, 2018; Obidoa et al., 2013)	The National Assembly (Asomba, 2012; Atueyi, 2019; Odunsi, 2019).
Poor learning infrastructure across secondary schools (Udo, 2011; Petters and Okon, 2013; Asadu and Abonyi, 2020; Anyamene et al., 2015)	The society (Adegoke, 2010; Asadu and Abonyi, 2020).	Using cameras and other electronic screening processes to monitor the exam process (Osadebe and Bini, 2018; Fayomi et al., 2015; Atueyi, 2019; Adeniran et al., 2020).	Security officers (Njoku and Nkoku, 2016).
Employing unqualified teachers (Asomba, 2012; Udo, 2011, 2013; Obidoa et al., 2013; Animasahun and Ogunniran, 2014; Orji et al. n.d.; Anyamene et al., 2015)	Powerful proprietors (Obidoa et al., 2013; Animasahun and Ogunniran, 2014)	E-invigilation/biometric processes/Computer Based Exams (Fayomi et al., 2015; Alhassan, 2017; Osaretin, 2016; Whawo, 2015)	The judiciary (Atueyi, 2019; Blueprint, 2019a; PM News, 2019).
Poor implementation of sanctions (Adeyemi, 2010)	Telecommunication companies (Danbaba et al., 2018; Onyibe et al., 2015; Ugwu, 2019).	Stiffening and enforcing legislation against malpractice (Asadu and Abonyi, 2020; Gbagolo, 2011)	NEC (Ibrahim, 2014).
Leakages of exam papers before the exams (Adeyemi, 2010)		Arrest, prosecution, or full implementation of criminal law for exam culprits (Osadebe and Bini, 2018; Anyamene et al., 2015; Emiloju and Adeyoju, 2012; Akintunde and Musa, 2016; Jekayinfa et al., 2011; Igwe et al., n.d.; Anzene, 2014; Animasahun and Ogunniran, 2014; PM News, 2018; Adeyemi, 2010)	Ministry of education (Aderogba, 2011; Onyibe et al., 2015).
Excessive workload for exam officials leads to inefficiency and creates room for malpractice (Lawal, 2019a)		Improve working conditions for teachers (Jimoh, 2009; Animasahun and Ogunniran, 2014)	
Availability of internet (Lawal, 2019b)		Closely monitoring affairs of secondary schools (Osadebe and Bini, 2018)	
Limited resources available to schools (Atueyi, 2019; Belo-Osagie, 2017)		Improve funding for the education sector (Jimoh, 2009; Onyibe et al., 2015; Onuka and Durwoju, 2013)	
Weak monitoring of private schools (Dungurawa, 2015; Fapohunda		Delisting/derecognition of schools found to perpetrate/engage in malpractice (Duru, 2020; Omebe, 2014; Anyamene et al., 2015; Atueyi, 2019; Premium Times, 2018; Lawal, 2019a)	
		Establishing education or exam malpractice courts/tribunal (Lawal, 2017; Onyibe et al., 2016; Ojogbane and Amali, 2016)	
		Fines/sanctioning of schools by the examination bodies (Atueyi, 2020; Omemu, 2015).	
		Demoting and sanctioning principals (Duru, 2020)	
		Dismissing/sanctioning exam officials, security, parents involved in malpractice (Ojogbane and Amali, 2016; Aderogba, 2011; Omemu, 2015; Atueyi, 2019; Adeyemi, 2010; Neme, 2020)	
		Closing down mushroom schools (Duru, 2020)	
		Cancellation of results of students caught cheating especially with mobile devices (Adeghide, 2018; Omemu, 2015; Gbagolo, 2011; Adeyemi, 2010)	
		Jamming mobile networks in and around the exam centres (Adegbide, 2018)	
		Increase pay of teachers and exam officials (Ojogbane and Amali, 2016; Udo, 2013; Boris and Awodun, 2012)	
		Examination Malpractice Commission (EMC) should function like the Economic and Financial Crime Commission (EFCC) in prosecution of examination malpractice offenders (Akintunde and Musa, 2016)	
		Strictly monitor computation of the CA of candidates (Onyibe et al., 2015; Adeyemi, 2010)	
		Tighten operating procedures e.g. setting questions night before exams (Onyedinefu, 2019)	
		Employing independent firms to validate and authenticate results (Nnam and Otu, 2015)	
		Increasing vigilance in schools identified to be notorious for malpractice (Aworinde, 2015a)	
		Incentivising whistle blowing (Omoniyi, 2019)	
		Policy compelling schools to update the data of their students from younger classes (SS1) on the WAEC portal (Omoniyi, 2019)	
		Ministry of Education to support exam bodies to curb exam malpractice (Omoniyi, 2019)	
		Boost funding to reward excellent performance (Belo-Osagie, 2015)	
		Overhaul the curriculum to recognise vocational and skills development so as to reduce the popularity of certificates (Animasahun, 2013; Jimoh, 2009)	

**Table 3**

Drivers and interventions for examination malpractices in MECs.

Nature and practices in MECs	Proximate drivers of exam malpractice conducted in MECs	Remote Drivers of exam malpractice conducted in MECs	Interventions/Recommendations
<p>Private schools more involved (Aworinde, 2015a; Atueyi, 2019; Jokthan, 2013)</p> <p>Proprietor guarantees 'good' results across all the subjects taken upon the payment of high registration fees (Aworinde, 2015a; Atueyi, 2019; Yunus, 2019)</p> <p>Connivance of rogue invigilators and corrupt school officials to provide students with answers to exam questions during the examination (Aworinde, 2015a; Atueyi, 2019)</p> <p>Use of electronic devices/technology such as electronic wrist watches, smart phones, eye glasses, miniature ear pieces, rings, Youtube clips explaining how to cheat (Belo-Osagie, 2017; Njoku and Njoku, 2016; Raji and Okunlola, 2017; Igwe et al., n.d.)</p> <p>Bribing supervisors/invigilators to allow exam malpractice (Obidoa et al., 2013; Onuka and Dorowolu, 2013; Okoye and Onwuzuruoha, 2020; Asinya, 2012)</p> <p>School authorities hire subject specialists to solve leaked exam questions, and the solutions are distributed to students who have paid exorbitant charges (Jekayinfa et al., 2011)</p> <p>Rogue students hired to write examinations for others (Yunus, 2019)</p> <p>Bribing security officials posted to exam halls to allow cheating (Okoye and Onwuzuruoha, 2020)</p> <p>Principals build in the cost of facilitating exam malpractice into exam registration fees (Omoniyi, 2019)</p> <p>Students switch to private schools (that run MECs) during SSCE registration (Onyedinefu, 2019; Okoye and Onwuzuruoha, 2020)</p> <p>Students pay extra examination fees used to 'settle' exam officials (Onyedinefu, 2019; Jekayinfa et al., 2011)</p> <p>Using mobile phones and other sophisticated electronic gadgets to facilitate cheating (Okoye and Onwuzuruoha, 2020)</p> <p>Constant increase in examination fees (Udo, 2011; Petters and Okon, 2013; Asadu and Abonyi, 2020)</p> <p>Students who register for extra lessons in preparation for examinations are registered into MECs to facilitate success at higher registration fees (Blueprint, 2019b; Udo, 2011; Jokthan, 2013)</p> <p>Answers to exam questions solved and shared with students (Omoniyi, 2019; Okoye and Onwuzuruoha, 2020)</p> <p>Candidates can pay relatively large amounts and are not required to write the examinations, but just to come and pick 'their good results' (2019)</p> <p>Parents seek and register their wards in MECs (PM News, 2018; The Nation, 2018)</p> <p>Registration of non-candidates, leakages (Joshua et al., n.d. Okoye and Onwuzuruoha, 2020)</p> <p>Using impersonators and false CA scores (Joshua et al., n.d.; Okoye and Onwuzuruoha, 2020)</p> <p>Seeking out and registering in exam centres in remote places where supervision will be loose (Orient Daily News, 2018; Duvie and Eluwa, 2016; Okoye and Onwuzuruoha, 2020)</p>	<p>Competition among private schools to attract and retain students which means more profit for them (Atueyi, 2019; Asadu and Abonyi, 2020)</p> <p>Corrupt invigilators (Kawugana and Woyopwa, 2017; Asadu and Abonyi, 2020)</p> <p>Peer influence (Njoku and Njoku, 2016; Jimoh, 2009; Anyamene et al., 2015)</p> <p>Parental pressure on students and examiners and payments to MECs to facilitate exam malpractice and assure good grades (Adegoke, 2010; Akintunde and Selzing-Musa, 2016; Blueprint, 2019c; Anagbogu et al., 2016)</p> <p>Non-coverage of syllabus (Udo, 2011; Udo, 2013; Joshua et al., n.d.; Adeniran et al., 2020; Petters and Okon, 2013)</p> <p>Imposition of subjects and career path on students by their parents (Petters and Okon, 2013)</p> <p>The profit from charging higher fees and the need to justify the high charges for more patronage (Aworinde, 2015a; Omoniyi, 2019)</p> <p>Student laziness and poor studying habits (Animasahun, 2013; Obidoa et al., 2013; Petters and Okon, 2013; Oriji et al. n.d.)</p> <p>Remote exam centres more likely to be involved as they are poorly supervised and expected delays in delivery of exam question papers and scripts (Jokthan, 2013; Duvie and Eluwa, 2016; Orient Daily News, 2018; Onyibe et al., 2015)</p> <p>Economic gains to teachers, examiners, principals and school owners (Onyibe et al., 2015; Asadu and Abonyi, 2020) and greed to get more money (Boris and Awodun, 2012; Igwe et al., n.d.; Aderogba, 2011)</p> <p>Tying the reputation and promotion of teachers to students' performance (Jokthan, 2013)</p> <p>Poor pay for teachers (Udo, 2013; Adeniran et al., 2020; Raji and Okunlola, 2017)</p> <p>Poor parenting (Animasahun, 2013)</p> <p>Increasing sophistication of malpractice networks (Raji and Okunlola, 2017)</p>	<p>Generally weak education sector (Danbaba et al., 2018)</p> <p>Moral decadence (Njoku and Njoku, 2016; Jimoh, 2009; Jimoh and Omorogie, 2012; Okpe and Lar, n.d.; Emiloju and Adeyoju, 2012)</p> <p>High value on certificates (entry requirements for higher education and requirement for employment) (Adegoke, 2010; Blueprint, 2019c; Jokthan, 2013; Odidi, 2014; Udo, 2013; Joshua et al., n.d.; Obidoa et al., 2013; The Nation, 2018; Petters and Okon, 2013; Jimoh, 2009; Anagbogu et al., 2016; Animasahun and Ogunniran, 2014; Igwe et al., n.d.; Asadu and Abonyi, 2020)</p> <p>Poor learning infrastructure across secondary schools (Udo, 2011; Petters and Okon, 2013; Asadu and Abonyi, 2020; Anyamene et al., 2015)</p> <p>Unqualified and nonchalant/poor teachers/teaching across secondary schools (Asomba, 2012; Udo, 2011; Udo, 2013; Obidoa et al., 2013; Animasahun and Ogunniran, 2014; Oriji et al. n.d.; Anyamene et al., 2015)</p> <p>Examiners being willing to compromise supervising the examinations (Boris and Awodun, 2012; Obidoa et al., 2013).</p> <p>Poor implementation of sanctions (Adeyemi, 2010)</p> <p>Leakages of exam papers before the examinations (Adeyemi, 2010)</p> <p>Excessive workload for exam officials leads to inefficiency and creates room for malpractice (Lawal, 2019a)</p> <p>Social media makes it easy to cheat (Lawal, 2019b)</p>	<p>Promoting ethical and moral education in schools (Gbago, 2011)</p> <p>Improving ethical conduct in society (Animasahun and Ogunniran, 2014; Gbago, 2011)</p> <p>Introducing honour codes for schools or rewarding well performing schools (Adeyemi, 2011)</p> <p>WAEC conducting campaigns to reduce malpractice (Jekayinfa et al., 2011)</p> <p>Ensuring adequate and competent teachers are recruited (Osadebe and Bini, 2018; Aworinde, 2015b; Obidoa et al., 2013)</p> <p>Ensuring that adequate facilities are installed (Osadebe and Bini, 2018; Obidoa et al., 2013)</p> <p>Using cameras and other electronic screening processes to monitor the exam process (Osadebe and Bini, 2018; Fayomi et al., 2015; Atueyi, 2019; Adeniran et al., 2020)</p> <p>E-invigilation/biometric processes/Computer Based Examinations (Fayomi et al., 2015; Alhassan, 2017; Osaretin, 2016; Whawo, 2015)</p> <p>Employ/encourage professional counsellors and social service professionals to tackle malpractice and related drivers (Ojogbane and Amali, 2016; Anzene, 2014; Animasahun and Ogunniran, 2014; Gbago, 2011; Aworinde, 2015b; Obidoa et al., 2013)</p> <p>Using psychoeducation/counselling students (Anyamene et al., 2015; Ojogbane and Amali, 2016; Emiloju and Adeyoju, 2012; Animasahun and Ogunniran, 2014; Gbago, 2011; Alhassan, 2017; Adeyemi, 2010)</p> <p>Improving involvement of parents and family in education (Yunus, 2019)</p> <p>Stiffening and enforcing legislation against malpractice (Asadu and Abonyi, 2020; Gbago, 2011)</p> <p>Arrest, prosecution, or full implementation of criminal law for exam culprits (Osadebe and Bini, 2018; Anyamene et al., 2015; Emiloju and Adeyoju, 2012; Akintunde and Musa, 2016; Jekayinfa et al., 2011; Igwe et al., n.d.; Anzene, 2014; Animasahun and Ogunniran, 2014; PM News, 2018; Adeyemi, 2010)</p> <p>Improve working conditions for teachers (Jimoh, 2009; Animasahun and Ogunniran, 2014)</p> <p>Closely monitoring affairs of secondary schools (Osadebe and Bini, 2018)</p> <p>Using trusted and reliable examiners (Osadebe and Bini, 2018)</p> <p>Improve funding for the education sector (Jimoh, 2009; Onyibe et al., 2015; Onuka and Durowoju, 2013)</p> <p>Involving national religious bodies in collaboration with the Ministry of Education on laying down procedures to establish and run schools (Aderogba, 2011; Onyibe et al., 2015)</p> <p>Delisting/derecognition of schools found to perpetrate/engage in malpractice (Duru, 2020; Omebe, 2014; Anyamene et al., 2015; Atueyi, 2019; Premium Times, 2018; Lawal, 2019a)</p> <p>Naming and shaming students and affected centres (Omebe, 2014; Belo-Osagie, 2015; Atueyi, 2019; Adeyemi, 2010)</p> <p>Establishing education or exam malpractice courts/tribunal (Lawal, 2017; Onyibe et al., 2016; Ojogbane and Amali, 2016)</p> <p>Fines/sanctioning of schools by the examination bodies (Atueyi, 2020; Omemu, 2015)</p> <p>Demoting and sanctioning principals (Duru, 2020)</p> <p>Dismissing/sanctioning exam officials, security,</p>

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**Table 3 (continued)**

Nature and practices in MECs	Proximate drivers of exam malpractice conducted in MECs	Remote Drivers of exam malpractice conducted in MECs	Interventions/Recommendations
			parents involved in malpractice (Ojogbane and Amali, 2016; Aderogba, 2011; Omemu, 2015; Atueyi, 2019; Adeyemi, 2010; Neme, 2020) Closing down mushroom schools (Duru, 2020) Cancellation of results of students caught cheating especially with mobile devices (Adegbide, 2018; Omemu, 2015; Gbagolo, 2011; Adeyemi, 2010) Jamming mobile networks in and around the exam centres (Adegbide, 2018) Thorough searching of candidates before entering the exam halls (Adegbide, 2018) Putting pressure on principals to monitor exam malpractice in their schools (Adegbide, 2018) Improving social/moral values and reorientation (Udim et al., 2018) Examination bodies and schools to attend regular workshops on strategies to combat exam malpractice (Tyokya, 2016) Sensitisation of students and teachers on the dangers of exam malpractice (Tyokya, 2016; Ojogbane and Amali, 2016; Yunus, 2019) Increase pay of teachers and exam officials (Ojogbane and Amali, 2016; Udo, 2013; Boris and Awodun, 2012) Examination Malpractice Commission (EMC) should function like the Economic and Financial Crime Commission (EFCC) in prosecution of examination malpractice offenders (Akintunde & Musa, 2016) Strictly monitor computation of the CA of candidates (Onyibe et al., 2015; Adeyemi, 2010) Tighten operating procedures e.g. setting questions night before examinations (Onyedinefu, 2019) Employing independent firms to validate and authenticate results (Nnam and Otu, 2015) Increasing vigilance in schools identified to be notorious for malpractice (Aworinde, 2015a) Universities to tighten screening to detect those who come in via malpractice (Aworinde, 2015a) CSOs e.g. Exam Ethics Marshal petitioning anticorruption arms e.g. Police, Economic and Financial Crime Commission, Independent Corrupt Practices Commission, Nigeria Security and Civil Defence Corps, and Ministry of Education (Papohunda, 2015) Incentivising whistle blowing (Omoniyi, 2019) Policy compelling schools to update the data of their students from younger classes (SS1) on the WAEC portal (Omoniyi, 2019) Ministry of Education to support exam bodies to curb exam malpractice (Omoniyi, 2019) Varying exam questions (Boris & Awodun, 2012) Boost funding to reward excellent performance (Belo-Osagie, 2015) Overhaul the curriculum to recognise vocational and skills development so as to reduce the popularity of certificates (Animasahun, 2013; Jimoh, 2009) Monitor private schools (Ndukwe, 2015)

nature of MECs seemed peculiar to Nigeria, despite some similar experiences we found in India, China, and Egypt (Ille and Peacey, 2019; Tierney and Sabharwal, 2017; Qijun and Yaping, 2015).

Our study is the first systematic literature review that has tried to aggregate findings across the examination malpractice literature in Nigeria with a special focus on MECs. The emphasis on SSCE qualifications as minimum criteria to access further academic qualification, job preservation, as well as legibility to stand for political positions are among the foremost reasons for which SSCE qualifications are sought in Nigeria, and which MECs position to meet demands, albeit dubiously.

Also, parental and peer pressure, inefficient teaching and learning practices, complicit school management practices, and community protection of rogue schools and their operators were identified as factors contributing to help MECs thrive. Yet the complicit activities of officials from examination bodies, and the nuances of identifying and sanctioning MECs further complicates the problem and makes solutions difficult. Perhaps, this review could inspire scholars to commence an investigation into similar systemic approach to examination malpractice in their respective countries.

Examination malpractice in any guise is considered a criminal act

and attracts heavy sanctions according to the laws of Nigeria (Examination Malpractice Act of Nigeria, 1999). However, the volume of literature we reviewed, many of which are recent, raise concerns about the enforcement and effectiveness of these sanctions (Raji and Okunlola, 2017). Common types of sanctions identified in the literature include the cancellation of results of students who wrote examinations in MECs and barring schools from participating for some years. Our findings suggest that the sanctions are rarely applied, and so are ineffective (Adeyemi, 2010). At best, claims of successes are allusions, as recent evidence, especially from media reports suggests that MECs are still operating (Okoye and Onwuzuruoha, 2020). Perhaps to tackle the menace of MECs, a different approach is required, especially one that aligns the interest of powerful stakeholders at the grassroots level (Khan et al., 2019).

The nature of our review highlights proximate and remote drivers of examination malpractice in MECs, but we are drawn to interventions that direct attention to proximate drivers. This is because an attempt to focus on remote drivers assumes that addressing the unethical conduct of examination in MECs is possible through improving accountability, transparency, and enforcement of rules. Khan et al. (2019) acknowledges that the enforcement of accountability and transparency measures are difficult to achieve in developing countries like Nigeria as rules are often selectively applied, and such settings often lack of resources to pursue due process. For instance, it might be difficult for the government to ban MECs with cases of malpractices as evidence because of the interest of powerful people within the polity. Moreover, other strategies like CCTV use, decongestion, and improved pay for invigilators and examiners will require funds and time for implementation. Unfortunately, security operatives such as the police in Nigeria are notorious for elite defence and other inimical activities (Orjiakor et al., 2020), especially in the face of an informal economy that will benefit them.

Our review identified actors at the grassroots level with power and interest who would like to see examination centres operate under fair conditions. These actors include Parent Teacher Associations, religious bodies/faith-based groups, community leaders, CSOs, owners of rule-following schools, guidance and counselling units, students, etc. We advocate for the need to build anti-corruption strategies around these groups, even though we understand that power relations are unevenly distributed among them. Religious bodies and most CSOs are built around ethical/moral concerns. Local CSOs such as the Exam Ethics Marshal is built around the ethical conduct of examinations, and they can petition anti-corruption arms like the Police, Independent Corrupt Practices and Related Offences Commission (ICPC), Nigerian Security and Civil Defence Corps, and Ministry of Education to take action against identified MECs (Fapohunda, 2015). Also, religious bodies will play the role of sensitising the public and can also put pressure on principals to monitor examination malpractice in their schools especially those operated by them. Additionally, when community leaders are co-opted into the fight against MECs, they can name and shame schools exhibiting traits of MECs through whistleblowing to reduce their patronage. Overall, the goal is to see local actors with power and interests to align with the anti-corruption effort. Although, schools do have roles to play in restoring values, their roles could be limited depending on whether schools are rule-following or not, and they might not be far-reaching because of the limited resources at their disposal. The NOA whose roles are specifically to preserve and build values in Nigeria should justify their budgetary appropriations by effectively taking up this responsibility.

Our conceptual framework recognises the different levels of these drivers of academic corruption, and believes that solutions to academic corruption can also emerge from them (Osipian, 2009). Though our conceptual framework in part recognises that interventions could be blended (involving actors at remote and proximate levels), we are convinced by Khan et al. (2019) that a good start should be the proximate levels since actors that are resident there are closest to the issue and within spheres of immediate influence. The scale of MECs in Nigeria

calls for urgent attention, hence it makes sense to go for practicable solutions that can yield positive outcomes in the short- and mid-terms.

Though our study is a pioneering review, we do not claim to have exhausted all drivers and existing interventions on examination malpractice in MECs. Also, we do not claim to have identified all relevant actors at the grassroots that are powerful enough to drive the desired outcome. It is very possible that there have been internal efforts by examination bodies or government agencies that are not available in both academic and media literature. Future studies should consider exploring more firsthand experiences of the problem. Studies identifying and engaging stakeholders in the solution to the problem of MECs are also needed.

There are yet critical questions to ask to further unravel the problem of MECs in Nigeria. Why are parents/students able to register for examinations in MECs despite the existence of policies preventing students from being admitted into final year class? What factors influence parents/students' willingness to pay for MECs instead of staying and writing examinations in quality (rule-following) schools? How do (rule-following) schools that lose their students to MECs react to this problem? What can rule-following schools do? These questions inspire us to pursue more refined understanding into the nature of MECs and examination malpractice in Nigeria. We hope to pursue further understanding by using more field-oriented approaches of surveys, stakeholder's workshops, interviews and focus group discussions, and implementation research to uncover the dynamics of examination malpractice in MECs.

With the understanding that the transfer of students to another school at the time they are about to sit SSCE is an indicator of malpractice, the PTA at all levels, school owners, and principals could come together to advocate and enforce strong policies that will prevent such fluid transition. This might be resisted by the MECs who could influence elections of candidates that head the PTA associations at all levels or are even connected to powerful persons in the policymaking field. Notwithstanding, a well-organised institutional drive at the grassroots can achieve some changes. This could be that rule-following schools can block students from leaving when it is about the time to sit SSCE by way of having parents and guardians sign an undertaking upon admission of students. The undertaking is to restrict the unwarranted transfer of the student to another school, especially students who are in their final years and are due to sit SSCE.

## 5. Conclusion

MECs constitute a powerful group that undermines the progress of education in Nigeria, as well as the competence of the country's human capital. It seems that they have endured and the sophistication of their activities have kept growing. Reports are replete in both traditional and non-traditional literature, enough to inspire action to engage the problem, yet actions both from proximate and remote actors seem slow. The thriving of academic corruption in any context without any deliberate thinking and action to counter it demeans education in such context (Heyneman, 2004). With the identification of key drivers and contingently, the key players in the problem of MECs, we have just opened the debate and search into the general problem of examination malpractice in MECs. The proximate and remote drivers identified in this study invites further research into the problem especially as these two drivers interact to sustain the activities of MECs. Notwithstanding, we share views with Khan et al. (2019) that horizontal actions are needed to cause urgent remedies and responses to the existence and activities of MECs in Nigeria.

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### CRediT authorship contribution statement

The following authors contributed to the different segments of this work:

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### Author note

We have no conflict of interest to declare.

No sections of this paper has been published elsewhere.

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