Science Discovery Psychology
2026, Vol. 1, No. 4, pp. 110–117
https://doi.org/10.11648/j.sdps.20260104.11

Research Article

Perceived Road Hazards and Commuter Anxiety as Predictors of Coping Strategies Among Residents of Offa Local Government Area, Kwara State

Oladele Damilare Ayodeji*

Department of Guidance and Counseling, Federal College of Education (Special), Oyo, Nigeria

Abstract

Daily movement along busy roads is part of life in many Nigerian towns, and in Offa it often means sharing narrow roads with commercial motorcycles and pedestrians who are not always attentive. This cross-sectional study examined perceived road hazards and commuter anxiety as statistical predictors of coping strategies among residents of Offa Local Government Area, Kwara State. A descriptive correlational design was adopted, and 384 adult residents were selected through stratified random sampling. Data were collected with the Perceived Road Hazard Scale (15 items), the Commuter Anxiety Scale (12 items) and the Brief Coping Strategies Scale (18 items), each scored as the mean of its items. The coping score combines adaptive and maladaptive responses, so a higher score indicates greater reported use of coping responses and not necessarily healthier or more effective coping. Pearson correlation showed that perceived road hazards (r =.642, p <.001) and commuter anxiety (r =.589, p <.001) were each positively related to coping strategies. Hierarchical multiple regression showed that the two variables jointly accounted for 48.7% of the variance in coping strategies (R^2 =.487, F (2, 381) = 181.11, p <.001), with perceived road hazards (β =.454) contributing more than commuter anxiety (β =.332). Because the data were collected at one point in time, these findings describe associations and do not show that hazards or anxiety cause particular coping responses. The results suggest that road safety education and counselling support for commuter stress may be worth considering for residents of Offa, and future studies should analyse adaptive and maladaptive coping separately.

Keywords

Perceived Road Hazards, Commuter Anxiety, Coping Strategies, Residents, Offa

1. Introduction

Moving around a town is something most people do without much thought, until the road itself becomes a source of worry. In Offa, as in many Nigerian towns of its size, daily journeys are made on foot, by commercial motorcycle, by tricycle or by bus along narrow and busy roads, and the people sharing those roads include pedestrians who are often distracted by phones and earphones. Commuting has long been recognised as a source of psychological strain, because it combines time pressure, loss of control and exposure to danger in a single routine activity [2].

A growing body of recent work supports this concern. A critical review by Chatterjee et al. [2] concluded that mood is

*Correspondence: Oladele Damilare Ayodeji (oladeledamilare2002@gmail.com)

Received: 12 October 2026; **Accepted:** 23 October 2026; **Published:** 9 November 2026

Copyright: © The Author(s), 2026. Published by Science Publishing Group. This is an **Open Access** article, distributed under the terms of the Creative Commons Attribution 4.0 License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

lower during the commute than during other daily activities, that congestion, crowding and unpredictability can all induce stress, and that the experience of the journey spills over into how people feel and perform at work and at home. A later systematic review of 45 studies reported that commute characteristics such as duration and mode affect wellbeing and mental health, and that the accumulation of commute experiences may change overall wellbeing, with emotional response acting as a moderator [7]. Evidence from public transport users points the same way, with elevated perceived stress and strong reactions to crowding reported among rail commuters [8]. A 2024 comparison of urban commuters in Spain similarly found that public transport users reported the highest commuter stress of the three commuter groups studied, and that active commuters reported lower stress than the others [14].

Perceived road hazards refer to a person's own judgement of how dangerous the road environment is, including the behaviour of other road users. This judgement does not always match recorded accident figures. Slovic [10] showed that people assess risk through feelings, familiarity and personal experience rather than through statistics alone, so two commuters travelling the same road may rate its danger very differently. For a resident who frequently sees pedestrians stepping into the path of a motorcycle without looking, the road may come to feel unpredictable, and unpredictability has been linked to higher commuting strain [2]. How strongly hazards are perceived is therefore a psychological variable worth measuring in its own right, separate from the physical condition of the road.

Pedestrian behaviour is one of the most visible sources of this unpredictability. A meta-analysis of experimental studies found that both talking on a mobile phone and texting while crossing the road increased the rate of hits and close calls, and that texting reduced the rate at which pedestrians looked left and right before or during crossing [9]. A recent systematic review of 30 studies likewise treats mobile phone distraction as a continuing threat to pedestrian safety and calls for more research as pedestrian habits change [5]. For anyone riding or driving through a town such as Offa, each lapse of this kind is a possible near-miss that has to be anticipated, which keeps attention and tension high throughout the journey.

Nigerian evidence on the road environment adds to the picture. Motorcycles have become a major means of public transport over the past three decades, and human error is reported to account for up to 90% of traffic accidents in the country [11]. In a study of 400 commercial motorcyclists in a semi-urban area of Ogun State, risky riding behaviour was associated with younger age, lower education and whether the riders had received training before starting the trade [11]. Findings of this kind show that the hazards on semi-urban Nigerian roads come from several directions at once, which is why the way residents perceive them deserves close attention. Recent reviews of commercial drivers in Africa add that hazardous and precarious road work is linked to anxiety, stress and wider psychological distress [15, 16], so road conditions in this setting carry psychological as well as physical costs.

The researcher, a corps member serving in Offa, has personally had three near-collisions while travelling by commercial motorcycle, each time because a pedestrian who seemed unaware of the traffic walked straight into the path of the motorcycle. Such encounters point to two concerns. The first is that pedestrians may underestimate the risks created by their own road behaviour. The second is that riders, passengers and other road users may carry a heightened level of anxiety and constant vigilance as a result, which can affect how they go about work and daily life. These observations are anecdotal, and the present study was designed to examine them systematically among the people who use the roads of Offa every day.

Commuter anxiety describes the fear, tension and worry that people experience when travel demands seem to exceed what they can comfortably handle. It is closely tied to the transactional model of Lazarus and Folkman [6], in which a situation becomes stressful when a person appraises it as threatening and doubts that personal resources are enough to meet it. Coping is what follows that appraisal. It covers the thoughts and actions people use to manage the demand, such as planning a safer route, staying alert, seeking help from colleagues or, less helpfully, avoiding the journey altogether [1]. Qualitative evidence from Metro Manila shows that commuters work actively on themselves to manage stress during congested journeys, for example by keeping their emotions in or finding ways to release tension [13].

Two frameworks guide the study. Risk Perception Theory, associated with Slovic [10], explains how residents arrive at their judgement of road danger, and why that judgement may differ from the view of the pedestrians whose behaviour creates the danger. The transactional model of stress and coping [6] then describes what would be expected to follow: once hazards are appraised as threatening, anxiety is expected to arise and coping efforts to be mobilised. Taken together, the frameworks suggest that stronger perceptions of road hazards and higher commuter anxiety should be accompanied by greater use of coping strategies, and that the two predictors should explain part of the variation in how people cope. Because the study is cross-sectional, the frameworks are used to interpret associations and are not tested here as causal sequences.

Much of the commuting stress literature has been drawn from workers in large cities, and residents of smaller towns have received far less attention. Yet the people of such towns, whether they walk, ride or travel as passengers, are exposed to the same hazards every day and have few alternatives to the roads available to them. Their experience of the road has direct implications for their wellbeing and for the guidance and support services that may be needed. This study therefore examined perceived road hazards and commuter anxiety as predictors of coping strategies among residents of Offa Local Government Area, Kwara State, with the aim of providing evidence that counsellors, community leaders and road safety agencies can use in planning support.

1.1. Objectives of the Study

The specific objectives of the study were to:

1) determine the relationship between perceived road hazards, commuter anxiety and coping strategies among residents of Offa Local Government Area, Kwara State; and
2) assess the combined predictive effect of perceived road hazards and commuter anxiety on coping strategies among residents of Offa Local Government Area.

1.2. Research Questions

The following research questions guided the study:

1) What is the relationship between perceived road hazards, commuter anxiety and coping strategies among residents of Offa Local Government Area, Kwara State?
2) What is the combined predictive effect of perceived road hazards and commuter anxiety on coping strategies among residents of Offa Local Government Area?

2. Methodology

2.1. Research Design

The study adopted a descriptive correlational research design to examine the relationships among perceived road hazards, commuter anxiety and coping strategies. The design was suitable because it allows naturally occurring relationships to be studied as they exist, without manipulating any variable, and because it supports a regression analysis of how much of the variation in coping strategies is accounted for by the two predictors.

2.2. Population and Sample

The target population comprised adult residents of Offa Local Government Area, Kwara State, who use the town's roads regularly, whether as motorcycle riders, tricycle or bus drivers, or passengers. A sample of 384 respondents was determined using Cochran's formula [3] at a 95% confidence level and a 5% margin of error, and was distributed across the wards of the local government area in proportion to their population. Of the 384 respondents, 226 (58.9%) were male and 158 (41.1%) were female, and all were aged 18 years and above. All respondents travelled by bus, tricycle or motorcycle.

2.3. Sampling Procedure

Stratified random sampling was used so that wards and gender were fairly represented. Within each ward, households were selected by systematic random sampling, and one eligible adult per household was invited to take part, which prevented members of the same family from being over-represented in the data. The household was the sampling unit, and the questionnaire was given to the selected adult wherever he or she was met, whether at home, at the workplace or in another public place. A total of 384 adults completed the questionnaire.

2.4. Inclusion and Exclusion Criteria

Inclusion criteria: residents aged 18 years and above, at least six months of residence in Offa Local Government Area, use of the town's roads on at least three days a week, and voluntary informed consent. Exclusion criteria: visitors and short-term travellers, persons unable to complete the questionnaire independently or with the reading support described below, and persons who took part in the pilot study.

2.5. Research Instruments

Three instruments were used. The Perceived Road Hazard Scale (PRHS) is a 15-item scale developed for this study to measure how often respondents encounter hazardous road behaviour such as distracted walking, careless road crossing and wrong-lane use. Responses are rated on a 5-point scale from 1 (Never) to 5 (Very Often) after the stem "On the roads I use in Offa, I come across…", for example "pedestrians stepping into the road without looking", and the pilot Cronbach's alpha was.84. The Commuter Anxiety Scale (CAS) is a 12-item scale drawing on the commuting stress literature [2, 7] to assess fear, worry, hypervigilance and physical tension while travelling, rated on a 5-point scale from 1 (Never) to 5 (Always) after the stem "When I travel in Offa…", for example "I feel afraid of being hit by a vehicle", with a pilot alpha of.87. For both scales, a respondent's score is the mean of his or her item responses, so scores range from 1 to 5. Higher scores indicate more frequent encounters with hazardous road behaviour (PRHS) and greater anxiety (CAS).

The Brief Coping Strategies Scale (BCSS) is an 18-item scale adapted from the Brief COPE (Coping Orientation to Problems Experienced inventory) [1]. It covers adaptive responses such as planning, active coping and seeking support, as well as maladaptive responses such as avoidance, and is rated on a 4-point scale from 1 (Not at all) to 4 (A lot) after the stem "When travelling on the roads in Offa, I…", for example "plan which route is safest". The Brief COPE has 28 items in 14 domains and refers to coping with a stressful event in general, so it could not be used unchanged for one everyday travel situation. The 18 BCSS items were therefore newly worded for travel on the roads of Offa, keeping the Brief COPE style of short statements about what a person does. They represent 12 of the 14 domains: planning, active coping, instrumental support, emotional support, positive reframing, acceptance, religion, self-distraction, denial, behavioural disengagement, venting and self-blame. The substance use and humour domains were not carried over because they did not fit a road-travel situation, and three items describe travel-specific responses (travelling when roads are quieter, travelling

in company and avoiding journeys unless necessary). A respondent's BCSS score is the mean of the 18 item responses (range 1-4). A single combined score was used because the study treated coping as the overall extent to which residents reported making efforts to manage the demands of travelling; in the transactional model, coping refers to such efforts whether or not they succeed [6]. A higher BCSS score therefore means greater reported use of the included coping responses, not more effective or healthier coping, and adaptive and maladaptive responses were not analysed separately. Its pilot alpha was.82. Because the PRHS was newly constructed and the other two scales were adapted, all three were pilot tested on 148 residents in a different area outside Offa Local Government Area (162 were approached, a response rate of 91.4%) before the main data collection. The full questionnaires are provided in Appendix A (Supplementary Material).

2.6. Data Collection Procedure

Trained research assistants administered the questionnaires to respondents at their homes, workplaces and other public places in the selected wards, and each response session lasted about 20 minutes. The pilot test was conducted on 14 February 2026 and the main study on 27 May 2026. Items were read out and explained in Yoruba for respondents who needed it. Participants gave informed consent before starting and were thanked and briefed afterwards. All responses were anonymous.

2.7. Data Analysis

Data were analysed with IBM SPSS (Statistical Package for the Social Sciences) Statistics version 27. Descriptive statistics (mean, *M*, and standard deviation, *SD*) were computed for all variables, and normality was checked using skewness and kurtosis values. Pearson product-moment correlation answered Research Question 1, and hierarchical multiple regression answered Research Question 2, with perceived road hazards entered at Step 1 and commuter anxiety at Step 2. Effect sizes were interpreted using Cohen's conventions [4], and multicollinearity was checked with tolerance and variance inflation factor (VIF) values. Because the design was cross-sectional, the results describe associations, and "predictor" is used in the statistical sense only.

3. Results and Findings

Table 1. *Descriptive Statistics and Reliability for the Study Variables.*

Variable	*M*	*SD*	Range	Skewness	Kurtosis	α
Perceived Road Hazards	3.46	0.71	1.60-5.00	-0.21	-0.38	.85
Commuter Anxiety	3.21	0.78	1.25-4.92	0.09	-0.51	.88
Coping Strategies	2.84	0.52	1.39-3.94	-0.32	-0.17	.83

Note. $N = 384$. Perceived road hazards and commuter anxiety were scored on a 5-point scale and coping strategies on a 4-point scale. Scale scores are item means; a higher coping score indicates greater reported use of coping responses, not necessarily more effective coping.

Table 1 shows that skewness and kurtosis values for all three variables fell well within ±2.0, so the data were treated as approximately normal and parametric tests were applied. Perceived road hazards had the higher mean of the two 5-point scales ($M = 3.46$, $SD = 0.71$), indicating that respondents frequently encountered hazardous road behaviour. Commuter anxiety was moderate ($M = 3.21$, $SD = 0.78$), and respondents reported a moderately high use of coping responses on the 4-point scale ($M = 2.84$, $SD = 0.52$). Because the coping scale uses a 4-point format, its mean is not directly comparable with those of the other two scales. Reliability coefficients for the main study ranged from.83 to.88, confirming adequate internal consistency.

Research Question 1

What is the relationship between perceived road hazards, commuter anxiety and coping strategies among residents of Offa Local Government Area, Kwara State?

Table 2. *Intercorrelation Matrix for the Study Variables.*

Variable	1	2	3
1. Perceived Road Hazards	-		
2. Commuter Anxiety	.565**	-	
3. Coping Strategies	.642**	.589**	-

Note. $N = 384$. $^{**}p < .001$ (two-tailed).

As shown in Table 2, perceived road hazards ($r = .642$, $p < .001$) and commuter anxiety ($r = .589$, $p < .001$) were both

significantly and positively related to coping strategies. By Cohen's conventions [4], both coefficients represent large effects. Perceived road hazards and commuter anxiety were also moderately correlated with each other (r =.565, p <.001), which indicates that the two constructs overlap without being interchangeable.

Research Question 2

What is the combined predictive effect of perceived road hazards and commuter anxiety on coping strategies among residents of Offa Local Government Area?

Table 3. *Hierarchical Multiple Regression Predicting Coping Strategies.*

Variable	*B*	*SE*	β	*t*	*p*	R^2	ΔR^2
Step 1						.412	.412
Perceived Road Hazards	0.470	0.029	.642	16.37	<.001		
Step 2						.487	.075
Perceived Road Hazards	0.333	0.033	.454	10.22	<.001		
Commuter Anxiety	0.222	0.030	.332	7.48	<.001		

Note. N = 384. Step 1: adjusted R^2 =.411, F (1, 382) = 267.84, p <.001. Step 2: adjusted R^2 =.485, F (2, 381) = 181.11, p <.001; change in F (1, 381) = 55.89, p <.001. Tolerance =.68 and VIF = 1.47 for both predictors.

Table 3 shows that perceived road hazards alone explained 41.2% of the variance in coping strategies at Step 1. Adding commuter anxiety at Step 2 raised the explained variance to 48.7% (R^2 =.487, adjusted R^2 =.485, F (2, 381) = 181.11, p <.001), a significant increase of 7.5% (ΔR^2 =.075, p <.001). Both predictors made unique and significant contributions in the final model. Perceived road hazards was the stronger predictor (β =.454, p <.001), followed by commuter anxiety (β =.332, p <.001). Tolerance and VIF values (.68 and 1.47) were well within accepted limits, so multicollinearity was not a concern [12].

4. Discussion of Findings

The strong positive correlation between perceived road hazards and coping strategies (r =.642) indicates that residents who judge the roads of Offa to be more dangerous also report using more coping strategies. This is the pattern the transactional model would predict, since a situation appraised as threatening calls for effort to manage it [6]. It also supports Slovic's position [10] that risk judgements are personal and experience-based, because the ratings reflect what residents meet on the road every day, including pedestrians who walk onto the carriageway while distracted. Chatterjee et al. [2] similarly reported that unpredictability makes commuting more stressful, and the pedestrian distraction documented by Simmons et al. [9] offers a plausible source of that unpredictability in a town like Offa. The result is consistent with residents who see the roads as more hazardous also reporting more active responses, although these cross-sectional data cannot show that the hazards led to those responses.

Commuter anxiety was also positively related to coping strategies (r =.589). Residents who felt more fearful, tense and watchful while travelling reported drawing on a wider range of coping responses. This agrees with Liu et al. [7], who found that emotional response plays a moderating role in how commute experiences build into wellbeing and mental health, and with Tenorio et al. [13], whose commuters described deliberate effort to manage the stress of congested journeys. Because the BCSS combines adaptive and maladaptive responses, a higher score signals more reported use of coping responses, not more effective or healthier coping, and the findings should not be read as showing that residents cope well. The two forms should be separated in later analysis, because a counsellor would respond very differently to a resident who plans safer routes than to one who stops making necessary journeys altogether [1].

The regression model showed that perceived road hazards and commuter anxiety together explained 48.7% of the variance in coping strategies, a large effect by Cohen's standard [4]. Perceived road hazards made the larger unique contribution (β =.454), and commuter anxiety added a further 7.5% of explained variance (β =.332) once hazards were controlled. The transactional model [6] would place the appraisal of external danger before the emotional response, but this study cannot test that order. The larger coefficient for perceived road hazards shows only that it was the stronger statistical correlate of coping scores once anxiety was controlled; it does not show that hazards come first or cause anxiety or coping. The two predictors were moderately correlated (r =.565), but a VIF of 1.47 shows that each carried distinct information. The remaining 51.3% of variance may reflect other influences, such as personality, earlier travel experience, social support and access to alternative transport.

The findings also fit the Nigerian evidence on how road risk arises. Sodeinde et al. [11] reported that human behaviour, and

particularly risky riding, accounts for most traffic accidents in the country, and that such behaviour varies with age, education and training. If residents of Offa observe unsafe behaviour from riders, drivers and pedestrians alike, a high perception of hazard is a reasonable reading of their surroundings and should not be dismissed as exaggerated worry. Recent reviews of commercial drivers in Africa likewise link hazardous, precarious road work to anxiety and wider psychological distress [15, 16], which is consistent with road conditions carrying psychological as well as physical costs. The strong association between perception and coping in this study is consistent with residents making real efforts to manage these risks, and counsellors may wish to consider how such efforts could be supported, although this study did not test the effect of any support.

The results also carry a wellbeing message. Chatterjee et al. [2] noted that the commute experience spills over into how people feel and function at home and at work, and Norgate et al. [8] reported raised perceived stress among public transport commuters, and Useche et al. [14] found that public transport users reported the highest commuter stress among urban commuters in Spain. If daily travel in Offa keeps people alert, tense and constantly adjusting, the cost may not stay on the road. It may show in fatigue, irritability and reduced concentration later in the day, which suggests that guidance and counselling services could have a role to play in addressing commuter stress, alongside road engineers and enforcement agencies. This is a possibility to be tested, not a result of the present study.

These findings should be read alongside certain limits. All three variables were measured by self-report at one point in time, so the relationships are associations and not proof of cause. The coping measure also combines adaptive and maladaptive responses, so it cannot show which kinds of coping residents used or how well they worked. The sample was drawn from one local government area and consisted of bus, tricycle and motorcycle travellers, so the experience of pedestrians, people with private vehicles, people in larger cities or those on different road networks may differ. Even so, how residents perceive road hazards, and how anxious they feel about travel, may be useful signals for counsellors to consider when planning commuter stress support, although they do not by themselves show how much support is needed.

5. Conclusion

The study found that perceived road hazards and commuter anxiety each relate positively to the coping strategies of residents of Offa Local Government Area, and that together they explain nearly half of the variation in those strategies. Perceived road hazards was the stronger statistical predictor, although, given the cross-sectional design, this shows association and not that the perception of hazard comes first or causes the stress response. Because the coping score combines adaptive and maladaptive responses, it reflects how much coping residents reported rather than how well they coped. Travel on the town's roads should therefore be treated as a real part of daily life and not as a background detail. Support for realistic judgement of road risk and for constructive coping may be worth exploring as a way of helping residents, but the present study did not test whether such support improves wellbeing.

6. Recommendations

The findings of this study, read alongside the existing literature, suggest the following possibilities. They are offered as suggestions to be considered and tested, not as benefits demonstrated by this study:

1) Guidance counsellors, working with community leaders, could consider organising road safety and commuter stress sessions for residents of Offa, covering safe use of commercial motorcycles, defensive travel habits and realistic assessment of road risk.
2) Counselling units in schools, health facilities and local government offices could consider offering simple commuter stress management support, including short group sessions on anxiety control and on constructive coping such as planning routes, travelling in company and seeking help early. Because the BCSS score does not distinguish adaptive from maladaptive coping, such sessions could begin by helping residents recognise which of their coping responses are helpful and which, such as avoiding necessary journeys, may not be.
3) Road safety and transport authorities, working with motorcycle and tricycle unions, should consider road user awareness campaigns in Offa that address distracted walking and careless road crossing, because residents reported encountering these behaviours often and phone-distracted walking is a documented source of near-misses [5, 9].
4) Future researchers should separate adaptive from maladaptive coping, include residents of other local government areas, compare pedestrians with motorcycle users and passengers, and use longitudinal or mixed-method designs to establish the order of the relationships observed here.

Abbreviations

BCSS	Brief Coping Strategies Scale
CAS	Commuter Anxiety Scale
COPE	Coping Orientation to Problems Experienced
M	Mean
PRHS	Perceived Road Hazard Scale
SD	Standard Deviation
SE	Standard Error
SPSS	Statistical Package for the Social Sciences
VIF	Variance Inflation Factor

Author Contributions

Oladele Damilare Ayodeji: Conceptualization, Data curation, Formal Analysis, Investigation, Methodology, Resources, Writing – original draft, Writing – review & editing

Conflicts of Interest

The author declares no conflicts of interest.

Appendix: Questionnaires

Table A1. Perceived Road Hazard Scale (PRHS; 15 items).

No.	Item
1	pedestrians walking while looking at their phones.
2	pedestrians wearing earphones who do not notice approaching vehicles.
3	pedestrians stepping into the road without looking.
4	people crossing the road carelessly.
5	pedestrians crossing at places not meant for crossing.
6	motorcycles riding in the wrong lane.
7	vehicles driving against traffic.
8	commercial motorcycles overtaking dangerously.
9	riders and drivers speeding on narrow roads.
10	motorcyclists carrying too many passengers.
11	riders without helmets.
12	drivers using phones while driving.
13	vehicles stopping suddenly without warning.
14	people sharing the road in a disorderly way.
15	near-misses between vehicles and pedestrians.

Response options: 1 = Never to 5 = Very Often. Stem: On the roads I use in Offa, I come across…

Table A2. Commuter Anxiety Scale (CAS; 12 items).

No.	Item
1	I feel afraid of being hit by a vehicle.
2	I worry that an accident could happen.
3	I feel tense before I leave home.
4	I find it hard to relax during the journey.
5	I stay constantly alert for danger.
6	I keep scanning the road for careless road users.
7	My heart beats faster when traffic is heavy.
8	My muscles feel tight.
9	I feel uneasy when I have to cross the road.
10	I feel nervous when riding on a commercial motorcycle.
11	I think about possible accidents long after the journey.
12	I feel worn out by the stress of the trip.

Response options: 5-point scale, 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always. Stem: When I travel in Offa…

Table A3. Brief Coping Strategies Scale (BCSS; 18 items).

No.	Item
1	plan which route is safest.
2	take active steps to avoid dangerous spots.
3	stay extra careful and alert.
4	think about what I can do to travel more safely.
5	travel at times when roads are less busy.
6	ask others for advice on safer ways to travel.
7	seek help from friends or colleagues about transport.
8	talk to people about how stressful travelling is.
9	travel together with other people when I can.
10	try to see the situation in a more positive light.
11	accept that the road conditions cannot easily be changed.
12	pray or rely on my faith.
13	try to take my mind off the journey.
14	avoid making journeys unless I absolutely must.
15	give up on some trips altogether.
16	tell myself it is not really as dangerous as it seems.
17	vent my frustration about other road users.
18	blame myself for having to use these roads.

Response options: 4-point scale, 1 = Not at all, 2 = A little, 3 = A medium amount, 4 = A lot. Stem: When travelling on the roads in Offa, I…

References

[1] Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine, 4*(1), 92-100. https://doi.org/10.1207/s15327558ijbm0401_6

[2] Chatterjee, K., Chng, S., Clark, B., Davis, A., De Vos, J., Ettema, D., Handy, S., Martin, A., & Reardon, L. (2020). Commuting and wellbeing: A critical overview of the literature with implications for policy and future research. *Transport Reviews, 40*(1), 5-34. https://doi.org/10.1080/01441647.2019.1649317

[3] Cochran, W. G. (1977). *Sampling techniques* (3rd ed.). John Wiley & Sons.

[4] Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.

[5] Kalam, P., Ishrath, N., & Rajendran, B. G. (2025). Pedestrian safety and distraction: A contemporary perspective. *Periodica Polytechnica Transportation Engineering, 53*(2), 111-123. https://doi.org/10.3311/PPtr.36749

[6] Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.

[7] Liu, J., Ettema, D., & Helbich, M. (2022). Systematic review of the association between commuting, subjective wellbeing and mental health. *Travel Behaviour and Society, 28*, 59-74. https://doi.org/10.1016/j.tbs.2022.02.006

[8] Norgate, S. H., Cooper-Ryan, A. M., Lavin, S., Stonier, C., & Cooper, C. L. (2020). The impact of public transport on the health of work commuters: A systematic review. *Health Psychology Review, 14*(2), 325-344. https://doi.org/10.1080/17437199.2019.1618723

[9] Simmons, S. M., Caird, J. K., Ta, A., Sterzer, F., & Hagel, B. E. (2020). Plight of the distracted pedestrian: A research synthesis and meta-analysis of mobile phone use on crossing behaviour. *Injury Prevention, 26*(2), 170-176. https://doi.org/10.1136/injuryprev-2019-043426

[10] Slovic, P. (1987). Perception of risk. *Science, 236*(4799), 280-285. https://doi.org/10.1126/science.3563507

[11] Sodeinde, K. J., Odukoya, O. O., Charles-Eromosele, T. O., & Olufunlayo, T. F. (2020). Risk behaviors for road traffic crashes among commercial motorcyclists in a semi-urban area of Ogun State, Nigeria. *Journal of Clinical Sciences, 17*(2), 38-45. https://doi.org/10.4103/jcls.jcls_15_19

[12] Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.

[13] Tenorio, B. G. V., Joe, J. A. S., Tamayo, R. C. M., & Canoy, N. A. (2019). The daily grind: A rhizomatic approach to narratives of managing commuter stress during traffic congestion in Metro Manila. *Journal of Constructivist Psychology, 32*(1), 63-80. https://doi.org/10.1080/10720537.2017.1410458

[14] Useche, S. A., Llamazares, F. J., & Marin, C. (2024). Good for the planet… and for you too? Comparing five travel and health-related outcomes among active, motorized, and public transport commuters. *Journal of Transport & Health, 38*, 101893. https://doi.org/10.1016/j.jth.2024.101893

[15] Amoadu, M., Sarfo, J. O., & Ansah, E. W. (2024). Working conditions of commercial drivers: A scoping review of psychosocial work factors, health outcomes, and interventions. *BMC Public Health, 24*(1), 1-13. https://doi.org/10.1186/s12889-024-20465-1

[16] Harerimana, A., & Mchunu, G. (2026). Driving in distress: Mapping psychological disorders among taxi and other commercial drivers in Africa. A scoping review. *Transportation Research Part F: Traffic Psychology and Behaviour, 119*, 103570. https://doi.org/10.1016/j.trf.2026.103570