Analysis of case studies

Learning Intention:

- Analyse case studies of substance impaired in New Zealand using SOLO levels

Resources

Case Studies handouts
SOLO Levels worksheets

Activity

The questions in this task use SOLO taxonomy verbs to develop ideas from a surface to a deeper engagement. This task will help you understand the bigger picture around substance impaired driving.

In groups, select and read two case studies. Use the questions below to unpack the ideas within each case study. Use your knowledge from what you already know to explore the bigger the picture.

NOTE: For the purpose of this activity, the identity of the person/s involved have been changed to protect their identity.

Case Study 1 - Opioid group (Heavy Transport):

Todd is a 54 year old man who holds a Driver Licence classes 1, 2, 3, 4, 5, 6, F, R, T, W, D and his current job requires him to regularly drive a heavy rigid vehicle (2-3 times a week). Todd reported that he has had an extensive employment history that has involved driving a range of vehicles including buses, forklifts, tractors and trucks (including heavy combination vehicles with GCW of more than 25,000kg) and lifting heavy objects.

Todd has a history of chronic low back pain and has been diagnosed with degenerative arthritis in his spine. He is overweight, doesn't exercise regularly, and is a heavy smoker. Over the last 15 years, his lower back pain has steadily worsened and he experiences spinal stiffness, especially after sitting for long periods of time, numbness running down to his thighs, limited range of motion and intermittent aching type of pain.

He has tried a number of treatments including physiotherapy, acupuncture, massage and strengthening exercises but still needs to use analgesic medications from time-to-time when his condition flares up. More recently, he has experienced ongoing pain that was persistent despite the use of anti-inflammatories and simple analgesics. His doctor prescribed tramadol, a strong analgesic commonly prescribed to relieve moderate to moderately severe pain, which he began taking at a low dose of 50 milligrams twice a day but found that he needed increasing doses to achieve the same analgesic effects. His doses gradually increased over a period of about three months until he was taking 400 mg per day by the time of the incident.

One afternoon while he was resting before a job, Todd's wife found him unresponsive, biting his tongue and experiencing a generalised seizure. She immediately called 111, and the paramedics took him to hospital.

During consultation with his doctor following the seizure, Todd acknowledged that he had often felt dizziness, difficulty breathing, was frequently quite drowsy and at times battled to keep his eyes open, even while driving his truck. Fortunately, this had not caused him to fall asleep while driving.

The NZTA received a notification from Alex's doctor outlining his concerns for Todd and his ability to continue driving a heavy vehicle.

Todd's commercial licence was suspended. This was a big blow to Todd and his job security was at stake. However, his doctor sent him for review by a neurologist who investigated him with an EEG and MRI and the scans showed no underlying neurological condition. The neurologist concluded that the seizure was triggered by the overuse of tramadol. A seizure triggered by large doses of tramadol was the event that brought Todd's overuse of the drug to the notice of his doctors. Todd's doctor then referred him to an addiction treatment facility followed by an outpatient medically supervised detoxification program (attending therapy sessions three times a week).

Given that there was no evidence of a neurological condition that might impact his driving, Todd's licence was reinstated, with the condition that he attended the detoxification program and provided evidence of attendance.

Case Study 2 - Sedative and youth

Jerome is 18 years old and holds a full licence to drive a car.

According to a medical report, Jerome suffers from anxiety and panic attacks, which are specifically worse when he is driving. These panic attacks involve dizziness, sweating, shaking, visual blurring and occasionally “blackouts”.

A medical report on Jerome expresses concern about him driving while under the influence of benzodiazepines, specifically clonazepam, which he is prescribed. It notes he also often drives under the influence of alcohol and has reported frequent use of both alcohol and clonazepam while driving.

A treating specialist verbally advised Jerome not to drive on medical grounds as described above. He also put this in writing to Jerome and his GP. However, the treating specialist also stated that he was not confident that Jerome would follow this advice, and as such, he notified police by telephone with his concerns. At this stage, NZTA was not contacted.

Jerome was travelling home from school in daylight on a familiar route. Witnesses stated that he was swerving and not maintaining lane position. His driving was erratic. Jerome reported that he had a panic attack which caused him to lose control of the car. When police were behind Jerome’s vehicle and signalled for him to stop he was still driving over the centre line. When he stopped, he side-swiped a bridge railing. A breath screening test for alcohol was negative, he denied having driven poorly and stated he suffered from panic attacks and was on clonazepam. His responses to questions were very slow. While his car sustained extensive damage, Jerome was not injured. He had some fellow student passengers in the car who were also not injured, but reported being very frightened by the ordeal. Police subsequently reported Jerome for a licence review.

Following the referral for licence assessment by the police, the NZTA Medical Review requested and received **a medical certificate** from his GP and a **psychiatrist’s report**. Jerome’s GP advised that his anxiety is reasonably controlled and he is no longer using sedating medicine The psychiatrist’s report stated that Jerome was doing well, has consistently reported alcohol consumption within recommended limits (apart from the occasional episode) and this was consistent with breath alcohol of zero at the interview. The psychiatrist **recommended continuation of driving**. NZTA did not revoke Jerome’s licence.

Case Study 3 – Stimulant

Michelle is a 28 year old female who holds a car licence. She has held her licence for 12 years, has never had a crash resulting in an injury, but has had a few traffic infringements in the last 4 years (e.g. parking, low level speeding fines).

Most of her adolescent and adult life has been a struggle with anxiety, depression and insomnia. Throughout the years she has sought medical and psychological assistance for her conditions. She has been diagnosed with a range of mental health conditions as detailed above and her GP and other health professionals have prescribed medications including Lorazepam, Zopiclone, Venlafaxine and codeine phosphate. It is unknown whether any of her health professionals have communicated with each other regarding Michelle's prescribed medications, communicated with Michelle regarding how these medications can affect driving, or know whether there is any misuse of these medications.

In the last 3-4 years, Michelle has started using illicit drugs, including cannabis and methamphetamine. She started this after some additional difficulties in her life. It is unknown whether her treating health professionals are aware of her drug use.

One morning, Michelle was driving to the train station with a friend and felt lightheaded, but continued to drive. However, without warning, she suffered a seizure, and crashed into two parked cars, causing extensive damage to all three vehicles. Police attended the scene, and interviewed the passenger who described seeing Michelle's eyes rolling back in her head, her hands clawed and her arms shaking. Other witnesses also described similar seizure/convulsing actions. Police were unable to interview Michelle at the time as she was taken to hospital. In hospital, staff determined that she was taking a range of prescribed medications and toxicology results also revealed that she had cannabis and methamphetamine in her blood.

The attending medical staff at the hospital emergency department advised Michelle not to drive. However, the clinician suspected that Michelle was likely to be non-compliant with this advice and hence, sent a report to the NZTA Medical Review.

Police interviewed Michelle before she was discharged from hospital and told her she was not to drive until cleared by the NZTA.

Police filed an incident report and, given their concerns regarding her drug use and prescribed medications, submitted a report to the NZTA. NZTA Medical Review sought information from Michelle's treating health professionals. The GP advised that she had never had a seizure before and that brain imaging and an EEG conducted following the incident were within normal limits. The NZTA then sought further medical advice. The NZTA notes that having a single seizure means that a person should stop driving for 12 months, but in exceptional circumstances may be reduced if there is a clearly identified non-recurring cause for the seizure. Given her driving history, no indication of misuse of prescribed medication, no knowledge of other seizures, and toxicology reports indicating presence of cannabis and methamphetamine only, a decision was made to clear her as medically fit to drive. Michelle is under regular review by her GP and has been referred to an addiction specialist.

Case Study 4 - Stimulant and youth

Mike is 17 years old and has been driving since he was 16. He drives his vehicle to school. The head of the school has been advised by Mike's parents that he has had nine reported mental health occurrences that have involved police in the current year, and they have asked that his teachers keep an eye on him. Several of his teachers report that he seems to have deteriorated recently and is quite delusional at times.

Mike has many friends and is very sociable. He likes to party on weekends, engaging in binge drinking and taking recreational drugs and often appears fatigued early in the week from the effects of this. As well as prescription drugs, Mike admits to using methamphetamine and a range of other drugs.

At about 5pm one Saturday police began receiving multiple reports from other drivers about a vehicle (being driven by Mark) travelling at excessive speeds (estimations at 140-180kph on a rural undivided road with a speed limit of 100kph). The vehicle was often driving on the wrong side of the road causing oncoming motorists to swerve out of the way to avoid a crash. Mike's vehicle stopped when it ran out of petrol and he flagged down a milk tanker. According to the tanker driver, Mike claimed that the tanker driver had a firearm and that Mike had been shot at and was being chased.

There was no evidence that anyone had been chasing or shooting at Mike at any time during his trip, but there was substandual evidence that his erratic driving not only put his own life in danger but placed numerous members of the general public at risk of injury or death.

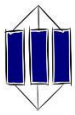
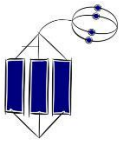
Mike was charged with multiple accounts of reckless driving and his vehicle was impounded for 28 days.

The police referred the case to NZTA for assessment. Subsequent to the incident and referral, reports were received from the Greymouth Mental Health team and his GP. The Mental Health team assessed Mike and applied to have his licence reviewed.

Mike's GP report stated that he was not currently medically fit to drive.

Mike was disqualified from driving for five years.

Selected Case Study: _____

SOLO Levels	Choose at least ONE prompt to answer from each row	Your answer
	• Identify one factor/cause • Identify one effect of medication impaired driving (MID) • Identify one action people could do to reduce risk/harm • Define MID within the context of the Case study	
	• List several factors/causes that affected MID • List several effects/consequences of MID in the case study (one from personal, interpersonal, societal) • Describe some possible solutions to reduce medication impaired driving	
	• Explain the major effects/consequences of MID in the case study (one from personal, interpersonal, societal) and inter-relate them • Explain the **impact** of the major factors/ causes of MID in the case study • Apply a health-enhancing strategy to the Case study	
	• Generate ideas about how the person in the Case study could change the way they behave and think when driving • Generate ideas about what government organisations might need to do to reduce MID • Predict future implications – positive and negative • Reflect on why this incident occurred in the first place	

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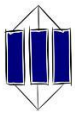
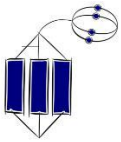
	• Explain the major effects/consequences of MID in the case study (one from personal, interpersonal, societal) and inter-relate them • Explain the **impact** of the major factors/ causes of MID in the case study • Apply a health-enhancing strategy to the Case study	
	• Generate ideas about how the person in the Case study could change the way they behave and think when driving • Generate ideas about what government organisations might need to do to reduce MID • Predict future implications – positive and negative • Reflect on why this incident occurred in the first place	