A Doctor's Death by Central Chest Stabbing – Suicide or Murder?

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Although the function of a coronial inquest is to determine the time, manner and cause of death, in cases of an unexpected or suspicious death or putative suicide, the coroner relies upon an analysis of the evidence collected from the death scene and the autopsy and any toxicology report. Particularly in cases of suspected suicide in which the decedent had a history of depression or alcohol abuse, the initial investigation should include a comparison of the statements from family members and witnesses and also from any medical practitioner the decedent attended before death. In the case of Dr Karen Mahlo, her ex-de-facto partner, who was the principal beneficiary of her considerable estate, reported finding her lying on her bed with a large kitchen knife imbedded in her central chest. The evidence given during the subsequent coronial inquest raises many questions about the time, manner and cause of Dr Mahlo's death. A further inquest should be convened.

Keywords: *doctor; chest stabbing; suicide; murder; death scene; investigation; coronial inquest*

It is a capital mistake to theorise before you have all the evidence. It biases the judgment.

Sir Arthur Conan Doyle, Sherlock Holmes (1905)

INTRODUCTION

Since Australia has strict legislation limiting the possession of firearms, knives are the most common weapon used in violent offences and stabbing is the most common method of murder.[1] However, even though knives, particularly large kitchen knives are ubiquitous in domestic settings, cutting or self-stabbing are very uncommon methods of suicide.[2]

Sharp instruments are usually used to incise or slash wrists in suicides. A study of 3,182 suicides in one Australian jurisdiction identified only two female fatalities caused by stab wounds to the chest or abdomen.[3]

A study of suicide methods in Queensland identified 173 suicides by "sharp object" accounting for only 2% of the total 8,140 suicides.[4] A later study of 1086 adults aged 65 or over who suicided in Queensland identified 4% of that older cohort who used "cutting and piercing instruments".[5]

In 2011, the most frequent method of suicide reported in Australia was by hanging (51%) followed by poisoning (26%).[6] Of the total 2,132 deaths by intentional self-harm, less than 3% (n = 55) were by

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[1] Australian Institute of Health and Welfare, *Assault and Homicide* (Australian Government, 2022); see also L Bartels, *Knife Crime in Australia: Incidence, Aetiology and Responses* (Australian Institute of Criminology, 2011).

[2] See also AE Austin et al, "Suicide in Forensic Practice – An Australian Perspective" (2011) 43(1) *Australian Journal of Forensic Sciences* 65.

[3] RW Byard et al, "Clinicopathologic Features of Self-inflicted Incised and Stab Wounds: A 20-Year Study" (2002) 23(1) *American Journal of Forensic Medicine and Pathology* 15.

[4] K Kõlves et al, "Choice of a Suicide Method: Trends and Characteristics" (2018) 260 *Psychiatry Research* 67.

[5] YW Koo, "Profiles by Suicide Methods: An Analysis of Older Adults" (2019) 23(3) *Aging and Mental Health* 385.

[6] Australian Bureau of Statistics, *Suicide in Australia* (Australian Government, 2011).

"contact with a sharp object". By 2020, hanging accounted for 61% of male deaths and 52% of female deaths by suicide.[7] Poisoning by substances was the second most common means of suicide among females accounting for almost a third of deaths. The incidence of suicide by "cutting" or "sharp object" was less than 1% for both males and females.[8]

Studies across occupations in Australia have shown that medical practitioners have higher rates of depression and a higher risk of suicide than the general population.[9] A 2019 national survey conducted by BeyondBlue found that approximately 20% of Australian doctors reported having been diagnosed with depression at some point in their lives.[10] Six percent had a current diagnosis of depression and there was a higher prevalence in female doctors compared with male doctors.

A recent systematic review and meta-analysis of 25 studies worldwide found that the standardised mortality rate for suicides among doctors was 1.33 and that female doctors were at higher risk.[11] The risk of suicide might be explained by several putative factors including the long arduous working hours, professional isolation and the stressful workplace[12] dealing with demoralising pain, suffering and death of their patients.[13]

A study of the methods used by 272 doctors in England and Wales found that deliberate overdose was by far the more common method of suicide used by doctors (OR 3.65) compared to the general population.[14] While "cutting and piercing" were also more common in doctors (OR 3.18) than in the general population, the actual numbers were quite small. Thirteen male doctors using a sharp object compared to only three female doctors who used a sharp object.

Personality traits including perfectionism, compulsive attention to detail and an over-valued sense of duty and responsibility may also be risk factors for anxiety, depression and suicidal ideation in doctors.[15] The higher risk for female doctors may relate to having more at-home responsibilities including child care.[16]

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[7] Australian Institute of Health and Welfare, *Suicide and Self-harming Monitoring* (Australian Government, 2022); see also NL Martínez-Rives et al, "Method-specific Suicide Mortality Trends in Australian Men from 1978 to 2017" (2021) 18(9) *International Journal of Environmental Research and Public Health* 4557.

[8] See also J Schnider et al, "Injuries Due to Sharp Trauma Detected by Post-mortem Multi-slice Computed Tomography (MSCT): A Feasibility Study" (2009) 11 *Legal Medicine* 4e9; T Konopka et al, "Chest Stab Wound Comparison in Suicidal and Homicidal Cases" (2003) 53(2) *Archiwum Medycyny Sadowej i Kryminologii* 117; F Abdullah et al, "Self-inflicted Abdominal Stab Wounds" (2003) 34 *Injury* 35; VD Singh et al, "Youth Suicide in New Mexico: A 26-year Retrospective Review" (2008) 53 *Journal of Forensic Sciences* 703; MM Large and OB Nielssen, "Suicide in Australia: Meta-analysis of Rates and Methods of Suicide between 1988 and 2007" (2010) 192(8) *Medical Journal of Australia* 432.

[9] AJ Milner et al, "Suicide by Health Professionals: A Retrospective Mortality Study in Australia, 2001–2012" (2016) 205(6) *Medical Journal of Australia* 260; E Bailey et al, "Depression and Suicide among Medical Practitioners in Australia" (2018) 48(3) *Internal Medicine Journal* 254; see also TL Leung et al, "Physician Suicide: A Scoping Literature Review to Highlight Opportunities for Prevention" (2020) 3(2) *Global Psychiatry* <https://sciendo.com/article/10.2478/gp-2020-0014>.

[10] BeyondBlue, *National Mental Health Survey of Doctors and Medical Students* (February 2019) <https://medicine.uq.edu.au/files/42088/Beyondblue%20Doctors%20Mental%20health.pdf>.

[11] F Dutheil et al, "Suicide among Physicians and Health-care Workers: A Systematic Review and Meta-analysis" (2019) 14(12) *PLoS One* e0226361 <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0226361>; see also K Petrie et al, "Suicide among Health Professionals in Australia: A Retrospective Mortality Study of Trends over the Last Two decades" (2023) 57 (7) *Australian & New Zealand Journal of Psychiatry* 983.

[12] A Milner et al, "The Relationship between Working Conditions and Self-rated Health among Medical Doctors: Evidence from Seven Waves of the Medicine in Australia Balancing Employment and Life (MABEL) Survey" (2017) 17(1) *BMC Health Services Research* 1; See also Australian Medical Association, *Position Statement: Health and Wellbeing of Doctors and Medical Students 2020* (2020).

[13] P Huggard et al, "Physician Stress: Compassion Satisfaction, Compassion Fatigue and Vicarious Traumatization" in C Figley et al (eds), *First Do No Self-harm: Understanding and Promoting Physician Stress Resilience* (OUP, 2013); K Petrie et al, "Workplace Stress, Common Mental Disorder and Suicidal Ideation in Junior Doctors" (2021) 51(7) *Internal Medicine Journal* 1074; VAN Helena, "Burnout, Compassion Fatigue and Suicidal Ideation in Oncology Healthcare Professionals" (2021) 5(7) *Journal of Surgery and Medicine* 718; SB Harvey et al, "Mental Illness and Suicide among Physicians" (2021) 398 *Lancet* 920.

[14] K Hawton et al, "Doctors Who Kill Themselves: A study of the Methods Used for Suicide" (2000) (93–96) *QJM: An International Journal of Medicine* 351.

[15] GJ Riley, "Understanding the Stresses and Strains of Being a Doctor" (2014) 181(7) *Medical Journal of Australia* 350.

[16] ES Schernhammer and GA Colditz, "Suicide Rates among Physicians: A Quantitative and Gender Assessment (Meta-analysis)" (2004) 161(12) *American Journal of Psychiatry* 2295; K Hawton et al, "Suicide in Doctors: A Study of Risk According to Gender,

Doctors who have had mental health problems show a high prevalence of self-stigma which is likely related to the stoic culture of the profession[17] and a fear of marginalisation and discrimination.[18]

However, even before the COVID pandemic,[19] studies showed that doctors with mental disorders including alcohol and substance use disorders[20] had low rates of help-seeking.[21] Barriers to help-seeking

Seniority and Specialty in Medical Practitioners in England and Wales, 1979–1995" (2001) 55(5) *Journal of Epidemiology and Community Health* 296; K Kõlves and D De Leo, "Suicide in Medical Doctors and Nurses: An Analysis of the Queensland Suicide Register" (2013) 201(11) *Journal of Nervous and Mental Disease* 987; YY Gordon et al, "Physician Death by Suicide in the United States: 2012–2016" (2021) 134 *Journal of Psychiatric Research* 158; Dutheil et al, n 11; D Duarte et al, "Male and Female Physician Suicidality: A Systematic Review and Meta-analysis" (2020) 77(6) *JAMA Psychiatry* 587; M Irigoyen-Otiñano et al, "Suicide among Physicians: Major Risk for Women Physicians" (2022) *Psychiatry Research* 114441; C Zimmermann et al, "Suicide Rates among Physicians Compared with the General Population in Studies from 20 Countries: Gender Stratified Systematic Review and Meta-analysis" (2024) 386(8439) *British Medical Journal* <https://www.bmj.com/content/386/bmj-2023-078964>; C Gerada et al, "Doctors and Suicide" (2024) 386(8439) *British Medical Journal* <https://www.bmj.com/content/386/bmj.q1758.full>.

[17] KJ Gold et al, "'I Would never want to have a Mental Health Diagnosis on my Record': A Survey of Female Physicians on Mental Health Diagnosis, Treatment, and Reporting" (2016) 43 *General Hospital Psychiatry* 51; KJ Gold et al, "Details on Suicide among US Physicians: Data from the National Violent Death Reporting System" (2013) 35(1) *General Hospital Psychiatry* 45; E Brooks et al, "When Doctors Struggle: Current Stressors and Evaluation Recommendations for Physicians Contemplating Suicide" (2018) 22(4) *Archives of Suicide Research* 519; KJ Brower, "Professional Stigma of Mental Health Issues: Physicians Are Both the Cause and Solution" (2021) 96(5) *Academic Medicine* 635; X Shen et al, "The Global Prevalence of Burnout among General Practitioners: A Systematic Review and Meta-analysis" (2022) 39(5) *Family Practice* 943; WE Bynum and J Sukhera, "Perfectionism, Power, and Process: What We Must Address to Dismantle Mental Health Stigma in Medical Education" (2020) 96(5) *Academic Medicine* 621; J Sukhera et al, "Normalising Disclosure or Reinforcing Heroism? An Exploratory Critical Discourse Analysis of Mental Health Stigma in Medical Education" (2022) 56(8) *Medical Education* 823 <https://doi.org/10.1111/medu.14790>; L Grassi et al, "The Problem of Burnout, Depression, and Suicide in Physicians: A General Overview" in L Grassi et al (eds), *Depression, Burnout and Suicide in Physicians* (Springer, 2022) 1; KE Hauer and E Hung, "Mental Health Self-disclosure: From Stigma to Empowerment" (2022) 56(8) *Medical Education* 784 <https://doi.org/10.1111/medu.14816>; IK Ng et al, "Mental Health Stigma in the Medical Profession: Where Do We Go from Here?" (2024) 24(1) *Clinical Medicine* 100013.

[18] M Henderson et al, "Shame! Self-stigmatisation as an Obstacle to Sick Doctors Returning to Work: A Qualitative Study" (2012) 2(5) *British Medical Journal Open* e001776; Gold et al, n 17; EF Adams et al, "What Stops Us from Healing the Healers: A Survey of Help-seeking Behaviour, Stigmatisation and Depression within the Medical Profession" (2010) 56 *International Journal of Social Psychiatry* 359; AI Garelick, "Doctors' Health: Stigma and the Professional Discomfort in Seeking Help" (2012) 36(3) *The Psychiatrist* 81; D Cohen et al, "Understanding Doctors' Attitudes towards Self-disclosure of Mental Ill Health" (2016) 66(5) *Occupational Medicine* 383; BA Clough et al, "What Prevents Doctors from Seeking Help for Stress and Burnout? A Mixed-methods Investigation among Metropolitan and Regional-based Australian Doctors" (2019) 75 *Journal of Clinical Psychology* 418; C Wijeratne et al, "Doctors' Reporting of Mental Health Stigma and Barriers to Help-seeking" (2021) 71(8) *Occupational Medicine* 366; G Zacay et al, "Preferences and Barriers to the Utilization of Primary Health Care by Sick Physicians: A Nationwide Survey" (2021) 38(2) *Family Practice* 109; KM Viverito et al, "Attitudes regarding Seeking Help for Mental Health Problems and Beliefs about Treatment Effectiveness: A Comparison between Providers and the General Public" (2018) 3 *Stigma Health* 35.

[19] R Bruffaerts et al, "Suicidality among Healthcare Professionals during the First COVID19 Wave" (2021) 283 *Journal of Affective Disorders* 66; KT Hoang et al, "The Comparative Mental Health of Australian Doctors before and during COVID-19: A Population-based Approach" (2023) 57(4) *Australian and New Zealand Journal of Psychiatry* 511 <https://doi.org/10.1177/00048674221106677>; S Awan et al, "Suicide in Healthcare Workers: Determinants, Challenges, and the Impact of CoViD-19" (2021) *Frontiers in Psychiatry* 12; T Vilovic et al, "Mental Health Well-being and Attitudes on Mental Health Disorders among Family Physicians during COVID-19 Pandemic: A Connection with Resilience and Healthy Lifestyle" (2022) 11(2) *Journal of Clinical Medicine* 438; EM Harry et al, "Childcare Stress, Burnout, and Intent to Reduce Hours or Leave the Job during the COVID-19 Pandemic among US Health Care Workers" (2022) 5(7) *JAMA Network Open* e2221776; M Bismark et al, "Thoughts of Suicide or Self-harm among Healthcare Workers during the COVID-19 Pandemic: Qualitative Analysis of Open-ended Survey Responses" (2022) 8(4) *British Journal of Psychiatry Open* e113; G Gulati and BD Kelly, "Physician Suicide and the COVID-19 Pandemic" (2020) 70(7) *Occupational Medicine* 514; J Lai et al, "Factors Associated with Mental Health Outcomes among Health Care Workers Exposed to Coronavirus Disease" (2020) 3(3) *JAMA Network Open* e203976.

[20] I Harwood and S Stansfeld, "Doctors and Alcohol Misuse" (2006) 333(Suppl S1) *British Medical Journal* 0607276; EJ Marshall, "Doctors' Health and Fitness to Practise: Treating Addicted Doctors" (2008) 58(5) *Occupational Medicine* 334; F Vayr et al, "Barriers to Seeking Help for Physicians with Substance Use Disorder: A Review" (2019) 199 *Drug and Alcohol Dependence* 116; E Savage et al, "Self-reported Alcohol Consumption in Doctors" (2020) 70(6) *Occupational Medicine* 439; M Murri et al, "Depression and Substance Use Disorders in Physicians" in L Grassi et al (eds), *Depression, Burnout and Suicide in Physicians* (Springer, 2022).

[21] S Zabar et al, "'I Cannot Take this Any More!': Preparing Interns to Identify and Help a Struggling Colleague" (2019) 34(5) *Journal of General Internal Medicine* 773; D Lindsay et al, "Conceal or Reveal? Patterns of Self-disclosure of Long-term Conditions at Work by Health Professionals in a Large Regional Australian health service" (2019) 12(5) *International Journal of Workplace Health Management* <https://www.emerald.com/insight/content/doi/10.1108/IJWHM-05-2018-0071/full/html>; NA

and recovery may relate to fears about confidentiality and the potential consequences for their career or medical registration.[22]

The association between symptoms of depression and medical errors by doctors is bi-directional.[23] Doctors who are defendants in medical negligence litigation or who are subject to fitness to practise assessments or other workplace disputes often feel isolated and experience highly stressful challenges to both their professional and personal identities.[24] These confronting processes are often protracted and may be compounded by a perceived or actual lack of support[25] which may exacerbate alcohol or substance use and further compound depressive ruminations and suicidal ideation.[26] Doctors also have familiarity and easy access to effective means to suicide[27] with self-poisoning being by far the most common method by which doctors take their own lives.[28]

In 2006, 51-year-old Dr Karen Mahlo was the Executive Director of a large medical service in the Australian State of Queensland when she was diagnosed with a depressive illness complicated by an alcohol use disorder. On 5 October 2006, she was stood down from her position while her capacity to continue in her senior position was under review. Dr Mahlo had also been in a conflictual relationship with John Hehir who was also her financial adviser and had prepared her will in which he was the principal beneficiary of her considerable estate.

In April 2008, after her relationship with Mr Hehir had broken down, Dr Mahlo advised family members and her treating doctors that she intended to make a new will in which Mr Hehir was not a beneficiary. On 28 May 2008, Mr Hehir claimed that he found Dr Mahlo dead in her bedroom with a large kitchen knife *in situ* in her central chest. Police later found two printed but unsigned notes which appeared to

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Muhamad Ramzi et al, "Help-seeking for Depression among Australian Doctors" (2021) 51(12) *Internal Medicine Journal* 2069; EF Bianchi et al, "Exploring Senior Doctors' Beliefs and Attitudes Regarding Mental Illness within the Medical Profession: A Qualitative Study" (2016) 6 *British Medical Journal Open* e012598.

[22] LN Dyrbye et al, "Medical Licensure Questions and Physician Reluctance to Seek Care for Mental Health Conditions" (2017) 92(1) *Mayo Clinic Proceedings* 1486; SS Mehta and ML Edwards, "Suffering in Silence: Mental Health Stigma and Physicians' Licensing Fears" (2018) 13(11) *American Journal of Psychiatry Residents' Journal* 2; see also C Wijeratne et al, "Australia Needs to Implement a National Health Strategy for Doctors" (2022) 217(7) *Medical Journal of Australia* 338 <https://doi.org/10.5694/mja2.51714>.

[23] K Pereira-Lima et al, "Association between Physician Depressive Symptoms and Medical Errors: A Systematic Review and Meta-analysis" (2019) 2(11) *JAMA Network Open* e1916097; see also R Sirriyeh et al, "Coping with Medical Error: A Systematic Review of Papers to Assess the Effects of Involvement in Medical Errors on Healthcare Professionals' Psychological Wellbeing" (2010) 19(6) *British Medical Journal Quality and Safety in Health Care* 1; A Wu and R Steckelberg, "Medical Error, Incident Investigation and the Second Victim: Doing Better but Feeling Worse?" (2012) 21(4) *British Medical Journal Quality and Safety in Health Care* 267; NK Menon et al, "Association of Physician Burnout with Suicidal Ideation and Medical Errors" (2020) 3(12) *JAMA Network Open* e2028780.

[24] T Bourne et al, "The Impact of Complaints Procedures on the Welfare, Health and Clinical Practise of 7926 Doctors in the UK: A Cross-sectional Survey" (2015) 5(1) *BMJ Open* e006687; L Nash et al, "Psychological Impact and Demographics of Medico-legal Action on General Practitioners" (2007) 41(Suppl 1) *Australian and New Zealand Journal of Psychiatry* 46; L Nash et al, "Australian Doctors' Involvement in Medicolegal Matters: A Cross-sectional Self-report Study" (2009) 191(8) *Medical Journal of Australia* 436; L Nash et al, "The Medico-legal Environment and How Medico-legal Matters Impact the Doctor: Research Findings from an Australian Study" in C Figley et al (eds), *First Do No Self-harm: Understanding and Promoting Physician Stress Resilience* (OUP, 2013).

[25] T Bourne et al, "Doctors' Perception of Support and the Processes Involved in Complaints Investigations and How These Relate to Welfare and Defensive Practice: A Cross-sectional Survey of the UK Physicians" (2017) 7(11) *BMJ Open* e017856; M Linden and CP Arnold, "Embitterment in the Workplace" in L Grassi, D McFarland and MB Riba (eds), *Depression, Burnout and Suicide in Physicians* (Springer, 2022); OM Bradfield et al, " Medical Negligence Claims and the Health and Life Satisfaction of Australian Doctors: A Prospective Cohort Analysis of the MABEL Survey" (2022) 12(5) *BMJ Open* e059447.

[26] D Casey and K Choong, "Suicide Whilst under GMC's Fitness to Practise Investigation: Were Those Deaths Preventable?" (2016) 37 *Journal of Forensic and Legal Medicine* 22; I Berardelli et al, "Suicide and Suicide Risk in Physicians" in L Grassi, D McFarland and MB Riba (eds), *Depression, Burnout and Suicide in Physicians* (Springer, 2022).

[27] Hawton et al, n 14; K Hawton et al, "Suicide in Doctors: A Psychological Autopsy Study" (2004) 57(1) *Journal of Psychosomatic Research* 1; M Labecka et al, "Use of Occupational Knowledge to Commit Suicide" (2016) 7(5) *Journal of Forensic Research* 1.

[28] K Skegg et al, "Suicide by Occupation: Does Access to Means Increase the Risk?" (2010) 44(5) *Australian and New Zealand Journal of Psychiatry* 429; A Milner et al, "Access to Means of Suicide, Occupation and the Risk of Suicide: A National Study over 12 Years of Coronial Data" (2017) 17(1) *BMC Psychiatry* 1.

be Dr Mahlo's final messages to her two adult children and to Mr Hehir. Dr Mahlo's family expressed disquiet about the circumstances of her death and particularly the provenance of the documents found on her printer. In January 2011, after Mr Hehir became "a person of interest", police made only perfunctory further investigations. On 19 August 2011, after a three-day hearing in which Mr Hehir gave sworn evidence, the Queensland Supreme Court in *Mahlo v Hehir*[29] held that although Dr Mahlo had clearly intended to make a new will in which Mr Hehir was not a beneficiary, she had not done so prior to her death. Between 5 December 2013 – 12 February 2014, a coronial inquest was held which found that Dr Mahlo had a major depression and was affected by alcohol when she took her own life by a self-inflicted stab wound to the central chest.

After summarising Dr Mahlo's history and reviewing the investigations made by police, the autopsy and toxicology findings and the report of an independent forensic pathologist, this article considers the evidence given both during the hearing into Dr Mahlo's contested will and the coronial inquest.[30] The article discusses the nature and features which may discern suicide by self-stabbing from murder by stabbing and considers the important aspects of any police investigation including the possible biases which might compromise the integration of evidence gathered from the death scene. This article concludes by highlighting some of the troubling aspects of the police investigation and the Coroner's conclusion that Dr Mahlo's death was a suicide.

The Life of Dr Karen Mahlo

Karen Lee Mahlo was born in Forbes, New South Wales on 5 September 1955. She was a high achiever at school and attended the University of Queensland and in 1980, completed her degree in medicine. In 1985, Dr Mahlo had a son named Ben and later she had a daughter named Anna before separating from her second husband. Dr Mahlo subsequently held a number of positions of responsibility and authority and had been the director of medical services of the Orange Hospital in central-western New South Wales. In 2005, Dr Mahlo became the Executive Director of Medical Services at the Nambour Hospital on the Sunshine Coast in Queensland.

Dr Mahlo's Relationship with John Hehir

In February 2006, Dr Mahlo first met John Hehir, the principal of the company, Financial Advisors Australia, from whom she sought financial advice. Mr Hehir was a well-known local identity on the Sunshine Coast who provided many public servants including police officers with advice on salary sacrificing, mortgage financing and tax planning. Mr Hehir was then married and living with his wife and two children. On 8 September 2006, Dr Mahlo began a relationship with Mr Hehir, and on 25 November 2006, Mr Hehir left his wife and moved into Dr Mahlo's home in Moffatt Beach.

Dr Mahlo's Will

On 14 November 2006, Dr Mahlo signed a will prepared by Mr Hehir which named him as executor and trustee and also the principal beneficiary of her considerable estate which included a life insurance policy worth $1.3 million, superannuation worth $450,000, a large house at Moffatt Beach and investment properties. In the course of his evidence at the subsequent coronial inquest, Mr Hehir denied that there was any conflict of interest with respect to his role as financial adviser and his personal relationship with Dr Mahlo.[31]

[29] *Mahlo v Hehir* (2011) 4 ASTLR 515; [2011] QSC 243.

[30] Office of the State Coroner, Queensland, *Findings of the Inquest into the Death of Dr Karen Lee Mahlo* (13 June 2014) <https://www.coronerscourt.qld.gov.au/__data/assets/pdf_file/0009/265563/cif-mahlo-kl-20140613.pdf> (*Inquest Findings*).

[31] *Inquest Findings*, n 30, 1 [9].

Dr Mahlo's Self-harming by Cutting, 2006–2008

From 1990, Dr Mahlo experienced episodes of depression. In 2006, Dr Mahlo had developed a major depressive episode which was complicated by an alcohol use disorder when concerns were raised about her mental health and capacity to perform her role in the health service. On 18 April 2006, Dr Mahlo took some medication with alcohol and made a superficial cut to the medial aspect of her left ankle. The laceration did not require suturing, and she was not admitted to hospital. On 5 October 2006, Dr Mahlo was stood down from her position at the Nambour Hospital. On 17 January 2007, she first attended private psychiatrist Dr Clive Fraser.

On 22 May 2007, Dr Mahlo had consumed considerable alcohol when she made a superficial cut to her right wrist. In his subsequent evidence to the Inquest, Dr Mahlo's treating psychiatrist Dr Fraser described both episodes of self-harming as "small lacerations … only a centimetre long"[32] which did not require suturing and did not warrant admission to hospital.

By July 2007, there were signs of increasing discord in Dr Mahlo's relationship with Mr Hehir and Dr Mahlo also received further details of the multiple complaints made by staff at the health service.

From 14 September 2007, after Dr Fraser became concerned when in the context of heavy drinking, Dr Mahlo cut off some of her hair and had a two-week voluntary admission to the Buderim Private Hospital. During this admission, Dr Mahlo's mother fortuitously learnt of her daughter's hospitalisation but when she contacted Mr Hehir, he refused to name the hospital to which Dr Mahlo had been admitted.

There had been significant friction between Mr Hehir and Dr Mahlo's 21-year-old daughter Anna who found his behaviour toward her and her mother to be manipulative and controlling. In January 2008, Dr Mahlo's daughter moved out from her mother's home in Moffatt Beach. On 14 February 2008, Dr Mahlo signed another will prepared by Mr Hehir which again appointed Mr Hehir executor and trustee as well as the principal beneficiary of her considerable estate.[33]

Between December 2007 and January 2008, although Dr Mahlo was able to obtain some alternative employment at the Redcliffe Hospital, she remained frustrated in her attempts to return to her previous substantive position at the Nambour Hospital.

The Breakdown in the Relationship with Mr Hehir, April 2008

During the Inquest, the Coroner found that "the weight of evidence was compelling" that by early April 2008, Dr Mahlo's relationship Mr Hehir had ended and on 2 April 2008, Dr Mahlo asked him to move out of her house.[34] The catalyst for the abruption occurred the previous day when Mr Hehir orchestrated an "April fool's joke" which humiliated and intimidated Dr Mahlo's daughter who was, at that time, employed in the office of Mr Hehir's business.

During the subsequent Supreme Court hearing into the contested will, Mr Hehir testified in that he had told Dr Mahlo that he needed "some space".[35] Mr Hehir testified that although from 2 April 2008, he rented an apartment in Cotton Tree, a suburb of the Sunshine Coast city of Maroochydore, 20 kilometres north of Moffatt Beach, he continued to sleep most nights at Dr Mahlo's residence. McMurdo J was highly sceptical of the evidence given by Mr Hehir:

> He said that the electricity was not connected at the Cotton Tree apartment and the only furnishing there was an inflatable bed. This beggars belief. Even upon his evidence, he must have spent many nights at Cotton Tree. He did not explain why, having gone to the trouble and expense of leasing this apartment, he did not make it habitable. There is no evidence, apart from his own, that he spent any nights at Dr Mahlo's house after he took this apartment.[36]

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[32] Office of the State Coroner, Queensland, *Findings of the Inquest into the Death of Dr Karen Lee Mahlo* (13 June 2014) <https://www.coronerscourt.qld.gov.au/__data/assets/pdf_file/0009/265563/cif-mahlo-kl-20140613.pdf>, Transcript, 3–28, from line 3.

[33] *Inquest Findings*, n 30, 2 [78].

[34] *Inquest Findings*, n 30, 2 [8].

[35] *Mahlo v Hehir* (2011) 4 ASTLR 515; [2011] QSC 243, Transcript 2–26 from line 15.

[36] *Mahlo v Hehir* (2011) 4 ASTLR 515, [17]; [2011] QSC 243.

In his evidence during the subsequent Inquest, Mr Hehir testified that from early April 2008, he leased a unit in Cotton Tree:

> It was just stressful at that particular time and both Karen or I could stay there. It was just I needed a place for some time out.[37]

Later in his evidence, Mr Hehir emphasised how sparsely the unit was furnished:

> There was no power … no computer … no fridge … The hot water wasn't even turned on. There was no furniture.[38]

There was considerable evidence that after the relationship with Mr Hehir broke down in April 2008, Dr Mahlo began preparing a new will in which Mr Hehir was neither executor nor beneficiary.

Dr Mahlo's Suicide Attempt by Overdose, 11 April 2008

On 11 April 2008, while her treating psychiatrist was away on leave, Dr Mahlo consumed considerable alcohol and took an overdose of medication and paracetamol and was taken by ambulance to the Caloundra Hospital before being transferred to the Royal Brisbane and Women's Hospital. After a two-day admission to the Royal Brisbane and Women's Hospital, Dr Mahlo was discharged and had a further five-day voluntary admission to the New Farm Clinic, a small private hospital in Brisbane.

Dr Mahlo's "New Will", 8 May 2008

In early May 2008, Dr Mahlo travelled with her daughter Anna to Orange in New South Wales to visit her parents and brothers and some of her friends. During the visit, Dr Mahlo told her mother that the relationship with Mr Hehir was over.

In his evidence in the Supreme Court, Dr Mahlo's 81-year-old father testified that Dr Mahlo said words to him to the effect that she was making a new will and planned to appoint her brother Brett as the executor.[39] Dr Mahlo's father testified that Dr Mahlo handed him a document and said words to the effect "this is my new will". Dr Mahlo's father testified that although he looked at the document and saw that Dr Mahlo had signed it, he did not discuss the contents of the will with Dr Mahlo.[40]

On 8 May 2008, when she attended her psychiatrist Dr Fraser on her return to the Sunshine Coast, Dr Mahlo said that her relationship with Mr Hehir was over and on that on 2 April 2008, she had asked him to move out of her home.

On 10 May 2008, Dr Mahlo's father travelled from New South Wales to stay with her in Moffatt Beach. On 14 May 2008, her father accompanied Dr Mahlo on her next appointment with Dr Fraser when she mentioned that she had changed her will. On the 19 May 2008, after he was satisfied that Dr Mahlo's mood was improved, her father flew back to New South Wales.[41] In his evidence during the Inquest, Dr Mahlo's father reported that during his ten-day visit with Dr Mahlo, he did not see Mr Hehir at any time.[42]

During the hearing into the contested will, the Court held that it was probable that Dr Mahlo had prepared a "new will" as an electronic document:

> [I]t was very likely that Dr Mahlo would wish to make a new will, removing [Mr Hehir] as an executor and beneficiary, in the new circumstance that their de facto relationship had ended.[43]

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[37] Inquest, Transcript 3–45, from line 44.

[38] Inquest, Transcript 3–52, from line 13.

[39] *Mahlo v Hehir* (2011) 4 ASTLR 515, [27]; [2011] QSC 243.

[40] Dr Mahlo's mother and father are now deceased.

[41] *Mahlo v Hehir* (2011) 4 ASTLR 515; [2011] QSC 243, Transcript 1–36, from line 4.

[42] *Inquest Findings*, n 30, 3 [3].

[43] *Mahlo v Hehir* (2011) 4 ASTLR 515, [31]; [2011] QSC 243.

Dr Mahlo's Medical Appointments, 21–22 May 2008

On 21 May 2008, Dr Mahlo attended Dr Fraser and on 22 May 2008, she attended her general practitioner. When they were later interviewed by telephone by police, Dr Mahlo's psychiatrist and her general practitioner reported that Dr Mahlo had confirmed that her relationship with Mr Hehir was over. Neither the psychiatrist nor her general practitioner reported that they had any concerns about Dr Mahlo's mental state or her risk of suicide during those consultations. Dr Mahlo's general practitioner was not called to give evidence at the Inquest. In his evidence at the Inquest, Dr Fraser also testified that he was relieved to hear Dr Mahlo say that she had not been drinking "for a few days" and there were "positive improvements" in her preparedness to compromise about conditions for her return to work.[44]

During the Inquest, Mr Hehir testified that up until her death on 28 May 2008, he considered himself to be in a relationship with Dr Mahlo and he agreed when the Coroner referred to his statement that he stayed overnight at Dr Mahlo's place "almost every night".[45] Later in his evidence, Mr Hehir conceded that he did not include in his statement that in the week between 10 and 19 May 2008, when Dr Mahlo's father was visiting, he did not stay at Dr Mahlo's house.[46] When he was asked whether he had any contact with Dr Mahlo's father during that week, Mr Hehir answered, "I don't recall".[47]

The Coroner completely rejected Mr Hehir's evidence that he had stayed at Dr Mahlo's home at Moffatt Beach every night from 18 April to 24 May 2008.[48] A neighbour who was interviewed by police contradicted Mr Hehir's evidence which was also inconsistent with what Dr Mahlo had told her family, her psychiatrist and her general practitioner. The neighbour was not called to give evidence during theInquest. The Coroner was dismissive of Mr Hehir's evidence:

> "Mr Hehir's evidence was at odds with what Dr Mahlo told her family and treating doctors. His evidence was totally unconvincing and appeared to be designed simply to support his financial claim against her estate".[49]

Dr Mahlo's Review by Psychiatrist Dr Fredericks, 26 May 2008

The contentious issue of Dr Mahlo's position at the Nambour Hospital remained unresolved. On 26 May 2008, two days prior to her death, Dr Mahlo attended Dr Kenneth Fredericks, an independent psychiatrist who was tasked with reporting to the Queensland Medical Board on her treatment and progress.[50] In a subsequent report dated 8 April 2009 to the solicitor acting on behalf of Dr Mahlo's brother Brett, Dr Fredericks summarised his findings from that last review:

> Dr Mahlo reported that she was feeling reasonable, she was not depressed and had not been drinking much alcohol at all over recent weeks … examination of her mental state at the time of my assessment revealed that her mood was not depressed and her cognitive functioning appeared normal. She provided me with a detailed and lucid history in response to my extensive questions. While I did not examine Dr Mahlo with the specific purpose of assessing her capacity to make a will, I did conduct a fairly extensive psychiatric evaluation … I am of the opinion that Dr Mahlo at that time had the capacity to make a will.

When she was later interviewed by police, Dr Mahlo's daughter reported that Dr Mahlo had told her that she was encouraged by the positive interaction she had with Dr Fredericks.

Critical Events, 27 May 2008

At 10.05 am, on 27 May 2008, Dr Mahlo rang Dr Fraser's rooms to postpone her next appointment for at least a week. Dr Mahlo was happy to report that was to return to work on the day preceding the proposed appointment. Dr Fraser's secretary documented in the telephone log that Dr Mahlo sounded

[44] Inquest, Transcript 3–31, from line 46.

[45] Inquest, Transcript 3–46, from line 22.

[46] Inquest, Transcript 3–47, from line 32.

[47] Inquest, Transcript 3–48, from line 6.

[48] *Inquest Findings*, n 30, 3 [5].

[49] *Inquest Findings*, n 30, 3 [5].

[50] *Mahlo v Hehir* (2011) 4 ASTLR 515; [2011] QSC 243, Transcript 1–26, from line 24.

"very positive and cheerful" and had said that her consultation on the previous day with Dr Fredericks "went very well".

During the afternoon of 27 May 2008, Dr Mahlo had a prolonged and acrimonious telephone exchange with Mr Hehir. When she was later interviewed by police and in her evidence during the Inquest, Dr Mahlo's daughter reported that she lived only "three blocks" from Dr Mahlo's address and that Dr Mahlo was visiting at the time and she could hear the phone conversation on "speaker" mode on Dr Mahlo's mobile phone.[51] Dr Mahlo's daughter reported that during the 30-minute phone conversation, Mr Hehir accused Dr Mahlo of "ruining" his life and the lives of her children. During the Inquest, when counsel assisting the Coroner asked repeatedly about the contents and tone of that phone conversation, Mr Hehir answered "I don't recall" seven times.[52] When counsel assisting the Coroner put to Mr Hehir Dr Mahlo's daughter's account of what she overheard of the rancorous conversation, Mr Hehir answered, "I don't recall".

Since the joint purchase of an expensive BMW motorcycle which was registered in Dr Mahlo's name had been a contentious issue, after the phone conversation with Mr Hehir, Dr Mahlo went with her daughter to the local office of the Department of Transport and transferred the registration of the motorcycle to Mr Hehir before going back to her daughter's home. Her daughter later reported that when Dr Mahlo left to return to her own home at the end of that day, she appeared relaxed and in a "good frame of mind" and was not intoxicated.[53] Dr Mahlo's daughter testified "she was laughing … kind of like 'Thank God it's over' sort of thing".[54]

At approximately 5:30 pm on 27 May 2008, Mr Hehir was dropped off by an employee at Dr Mahlo's Moffatt Beach residence to collect the motorcycle. Mr Hehir had an electronic swipe card which enabled access to Dr Mahlo's house. An argument ensued between Mr Hehir and Dr Mahlo which was witnessed by some friends of Dr Mahlo's daughter who happened to be visiting. When police later canvassed the neighbourhood, a neighbour from across the street also reported hearing the argument.[55] During the Inquest, when counsel assisting the Coroner asked whether he argued with Dr Mahlo at her house that afternoon, Mr Hehir answered: "I don't believe so".[56]

In his subsequent statement to the police, Mr Hehir said that at approximately 6.30 pm, he left Dr Mahlo's house and returned to his office and remained there until midnight before driving to his unit at Cotton Tree.[57]

Phone Calls Made by Dr Mahlo, 27 May 2008

A subsequent forensic examination of her phones showed that during the evening of 27 May 2008, Dr Mahlo made four calls to people who were important to her. The first call from 7:00 pm of approximately 25 minutes was to her mother who later reported to police that Dr Mahlo "sounded relaxed" and related spending time with her daughter Anna earlier that day. Her mother reported that she did not form the impression that Dr Mahlo sounded intoxicated during the phone call.[58]

At 7:37 pm, Dr Mahlo tried to call a long-time friend Dr Jennifer Ruhno and left a message. At 7:38 pm, Dr Mahlo called her son. In his evidence at the Inquest, her son reported that in the last month to six weeks , there had been "a notable improvement in her mood. She was … back to her old self in a lot of

[51] Inquest, Transcript 3–6, from line 43.

[52] Inquest, Transcript 3–49, from line 24.

[53] *Inquest Findings*, n 30, 3 [8].

[54] Inquest, Transcript 3–8, from line 6.

[55] *Inquest Findings*, n 30, 4 [1].

[56] Inquest, Transcript 34–39, from line 8.

[57] *Inquest Findings*, n 30, 4 [4].

[58] *Inquest Findings*, n 30, 10 [5].

ways",[59] Her son testified that during the phone conversation, Dr Mahlo sounded "quite bubbly"[60] and spoke about her plans for the future now that she was rid of the motorbike which had been a contentious issue with Mr Hehir.[61] Her son testified that Dr Mahlo sounded happy "the best mood that I had heard her in, in probably a year".[62] Her son reported that during their final phone conversation, Dr Mahlo did not sound as if she was affected by alcohol. Dr Mahlo's last phone call was to her daughter Anna with whom she had spent significant time earlier on that day. Dr Mahlo had arranged to accompany Anna to a doctor's appointment the following day. In her evidence, Ann testified that she formed the impression that her mother sounded "fine, but stressed".[63]

In her subsequent findings, the Coroner did not comment upon the testimony of Dr Mahlo's mother and children or the impression they formed of Dr Mahlo's mental state during the phone calls she made only 10 hours before she was found dead.

Findings of the Forensic Examination of Activity on Dr Mahlo's Computer

Dr Mahlo's computer showed that at 8.00 pm on 27 May 2008, she had searched Gray's online for "white goods." The Coroner noted that it was uncertain what had happened between the late night of 27 May 2008 and the early morning of 28 May 2008, when the ambulance first responders attended the address. The Coroner referred to the findings of a forensic examination of Dr Mahlo's computer conducted on 27 June 2008.

At 2:45 am on 28 May 2008, a USB stick named "John's USB" was inserted into Dr Mahlo's computer.[64]

At 2:47 am, a document entitled "Ann and Ben from Mum" was created.

At 2:48 am, a document first entitled "message John" was created and then re-named "suicide John".[65] At 2:51 am, a document entitled "Last will and testament of Karen Lee Mahlo" was accessed.

At 2:52 am, photographs of Dr Mahlo's daughter and son were opened on the computer.

At 3:29 am, file activity was recorded on the computer by a "right click" and selection of properties which altered the hibernation setting on the computer to ensure that the document entitled "suicide John" remained open and visible on the computer screen.[66]

Dr Mahlo's printer has never been forensically examined.

It was not until 20 January 2011 when he became a "person of interest" that police executed a search warrant on Mr Hehir's business and seized his laptop computer, USB sticks and documents relating to Dr Mahlo. Police subsequently arranged for a forensic examination of the laptop computer that Mr Hehir used at the time of Dr Mahlo's death. The USB stick named "John's USB" could not be located. The failure to collect any of this evidence at the time of the initial police investigation was not commented upon by the Coroner in her findings.

Phone Calls to and from Dr Mahlo's Residence, 28 May 2008

At 3:06 am on 28 May 2008, a call was made from Dr Mahlo's home landline phone to Mr Hehir's mobile phone. Although the unanswered call was of 10-seconds duration, significantly, no message was left on Mr Hehir's mobile phone. The Coroner later noted that there was no evidence from phone tower

[59] Inquest, Transcript 3–21, from line 7.

[60] Inquest, Transcript 3–22, from line 44.

[61] *Inquest Findings*, n 30, 10 [7], Transcript 3–23, from line 1.

[62] Inquest, Transcript 3–23, from line 19.

[63] *Inquest Findings*, n 30, 10 [8], Transcript 3–9, from line 46.

[64] *Inquest Findings*, n 30, 4 [5].

[65] *Inquest Findings*, n 30, 4 [7].

[66] *Inquest Findings*, n 30, 10 [11].

recording of Mr Hehir's whereabouts when his mobile phone received that call from Dr Mahlo's landline phone.[67]

Mr Hehir later claimed to police that at approximately 4.30 am when he "woke" to use the toilet, he noticed a "missed call from Karen's home" and he attempted to return her call. From 4:33 am, there were seven calls from Mr Hehir's mobile phone to Dr Mahlo's home landline phone and also to her mobile phone.

All Mr Hehir's calls to Dr Mahlo went through to the message bank unanswered. The messages Mr Hehir left were later retrieved from Dr Mahlo's phone. The first message from the call made by Mr Hehir at 4.33 am commenced:

> Karen, Karen if you can hear me please come to the phone. Did you ring me a little while ago? I'm sorry I missed the call. Please come to the phone. Are you okay?[68]

Mr Hehir's fifth and final call to Dr Mahlo's phone at 4:49 am included a statement:

> I've rung triple zero. They will come. All I have to do is pick up the phone and ring them and they will turn around. But I have rung them.[69]

In her findings, the Coroner did not address a number of questions raised by the phone messages:

- Why would Dr Mahlo spend time on her computer between 2:45 am–3.29 am and at 3.06 am make a "final call" of 10-seconds duration to Mr Hehir without leaving any message?
- Why would Mr Hehir begin his first voice message to Dr Mahlo's by saying "Karen, if you can hear me"?
- Why would Mr Hehir ask "Did you ring me" when his mobile phone would have clearly registered that the "missed call" was from Dr Mahlo's phone.

Police later established that mobile phone signals to towers confirmed Mr Hehir's account that soon after 4.33 am, he drove from his residence in Cotton Tree to Moffatt Beach.[70] During the drive to Dr Mahlo's house, Mr Hehir made further calls. At 4.40 am and 4.41 am, as he drove to Dr Mahlo's house, Mr Hehir called the triple zero emergency number and requested that an ambulance attend Dr Mahlo's house.

No Phone Call to Dr Mahlo's Daughter

During the Inquest, counsel assisting the Coroner noted that there was no record of Mr Hehir attempting to contact Dr Mahlo's daughter Anna who lived very nearby. When he was asked why he did not consider ringing Dr Mahlo's daughter, when he could not contact Dr Mahlo, Mr Hehir answered: "I don't recall … I don't remember".[71] Mr Hehir agreed with counsel that Dr Mahlo's daughter lived "literally only several doors away" from her mother's house.[72] In his reply, Mr Hehir disparaged Dr Mahlo's daughter by adding that "most nights" Dr Mahlo's daughter was "drunk or on drugs".[73]

The Death of Karen Mahlo

Mr Hehir Arrives at Dr Mahlo's Residence

Mr Hehir testified that it took "approximately half an hour" to drive from Cotton Tree to Moffatt Beach.[74] Mr Hehir later told police at the scene that at approximately 5:00 am, when he arrived at Dr Mahlo's

[67] *Inquest Findings*, n 30, 12 [8].

[68] *Inquest Findings*, n 30, 11 [2].

[69] *Inquest Findings*, n 30, 11 [4].

[70] *Inquest Findings*, n 30, 5 [3].

[71] Inquest, Transcript 3–54, from line 3.

[72] Inquest, Transcript 3–55, from line 7.

[73] Inquest, Transcript 3–55, from line 17.

[74] Inquest, Transcript 3–57, from line 25.

house, he found the front door "wide open" and the ground floor unlit.[75] During the Inquest, although he acknowledged that Dr Mahlo owned two small dogs, when he was asked whether he was concerned when he found the front door open, Mr Hehir answered that there was "nothing particularly unusual".[76] During the Inquest, Mr Hehir was not asked anything about what he observed after he entered Dr Mahlo's house and he was not asked whether he operated Dr Mahlo's computer.

When he first spoke to police, Mr Hehir claimed that in the upstairs bedroom, he found Dr Mahlo lying face up on her bed with a large kitchen knife in her chest.[77] Mr Hehir claimed that he made another call to the emergency number and was speaking with the operator when, at approximately 5.12 am, ambulance officers arrived. Shortly after the first responders arrived, Dr Mahlo was declared deceased.

At 5.37 am, police arrived at the residence. Dr Mahlo's body was reported to have been cold and the features of early rigor mortis and lividity (the purple discolouration of skin which occurs when blood pools at the lowest point of the body due to gravity and loss of circulation). No core body temperature was recorded at the death scene and because the body was refrigerated before the autopsy was performed the following day in the John Tonge Centre in Brisbane, any further estimate of the time of death was precluded.

The Informal Police Interview of Mr Hehir at the Death Scene, Morning of 28 May 2008

The lead police investigator Detective Senior Constable Jodie Allen reported that when he spoke with Mr Hehir, he introduced himself as Dr Mahlo's "boyfriend" and appeared quite distressed.[78] Mr Hehir told police that their 18-month long relationship had ended "recently" and that on 12 April 2008, Dr Mahlo had attempted suicide. Mr Hehir also claimed that Dr Mahlo had made two earlier suicide attempts by an overdose of medication and had inflicted "severe cuts to her arm and an artery in her leg". Mr Hehir told police that on the previous day, he had gone to her house to collect the motorbike the registration of which Dr Mahlo had transferred to him earlier on that day. Contrary to the accounts subsequently given by the friends of Dr Mahlo's daughter Anna who happened to visit Dr Mahlo during the afternoon and the account given by a neighbour from across the street, Mr Hehir denied that he argued with Dr Mahlo. Mr Hehir told police that although she had been drinking, Dr Mahlo did not appear to be "drunk" and was in "good spirits" and gave him "a kiss and a cuddle" before he left.

Mr Hehir told police that later in the early evening when Dr Mahlo rang him, they had argued. He told police they argued intermittently, particularly when she drank alcohol. No police body-worn camera footage of police questioning Mr Hehir at the death scene was admitted in evidence during the Inquest.

The Police Examination of the Death Scene

Scenes of crime officer Senior Constable Peter Batchelor found no signs of forced entry or any signs of struggle or disturbance. As well as the large stainless-steel chef's knife in Dr Mahlo's chest, police found a smaller, blue-handled filleting knife and a box-cutter on the bedside table and another large kitchen knife on the floor beside the bed. There were no recent injuries to Dr Mahlo's wrists or ankles. The police failed to note the minor injuries to the palm and thumb of Dr Mahlo's right hand and at that time, police did not know that Dr Mahlo was left-handed. The injuries to her right hand suggested that Dr Mahlo had used her right hand to stab herself which was inconsistent with her being left-handed. Police noticed a number of areas on the bedding and pillows which had what appeared to be spots of blood and some contact smears of blood.

[75] *Inquest Findings*, n 30, 4 [13].

[76] Inquest, Transcript 3–58, from line 7.

[77] *Inquest Findings*, n 30, 4 [13].

[78] *Inquest Findings*, n 30, 5 [5].

Police discovered two printed pages lying face down on the tray of a computer printer in the downstairs office. Neither page was signed. One note was addressed to Dr Mahlo's two adult children and one was addressed to Mr Hehir. The note addressed to Mr Hehir was also illuminated on the computer screen.

At 7:24 am, police examined Dr Mahlo's computer and a document entitled "Last will and testament" was activated on the screen.[79]

During the Inquest, Detective Constable Allen testified that she thought Mr Hehir's behaviour was unusual (describing him as a "blubbering mess")[80] and she formed the impression that Mr Hehir exhibited "crocodile tears" and that having observed many grieving people in her experience, she found his behaviour distinctly strange. Despite these concerns, within seven hours of finding the body and before any of the death scene evidence had been processed and five months before the report of the autopsy became available, on 29 December 2008, the police concluded that Dr Mahlo's death was a suicide.

The Police Failure to Collect Evidence

Dr Mahlo's daughter Anna had a swipe card that enabled her to gain entry to the house.Mr Hehir still had a swipe card. It was never speculated by the Coroner why Dr Mahlo, who owned two small dogs, would have left the front door "wide open" as Mr Hehir claimed.

There was no mapping of the death scene by photography or video recording. No scrapings for DNA analysis were collected from under Dr Mahlo's fingernails at the death scene. The investigating police conducted no testing for blood anywhere in Dr Mahlo's house including any of the sinks, shower room or laundry.

No testing for blood was performed on Mr Hehir's clothes, his vehicle or at his residence. No close examination of Mr Hehir's hands was documented, and no scrapings were collected from under Mr Hehir's fingernails at the death scene or later when he was taken to be formally interviewed at the Caloundra police station.

In her subsequent findings, the Coroner did not comment upon the failure of the police to have conducted even the most rudimentary collection of evidence at the death scene.

The stainless-steel knife found in Dr Mahlo's chest was not examined for fingerprints until 4 June 2008, five days after her body was found. During the Inquest, it was reported that since the surface of the large, blue-handled knife, the box-cutter and the other kitchen knife was "very poor" and of "disrupted standard", no fingerprints could be collected from these items. It was also reported to the Inquest that no fingerprints could be found on the pages found on the printer.[81]

While it may have been difficult or even impossible to lift fingerprints from the patterned stainless-steel handle of the knife, theoretically it should have been possible to collect DNA from the handle.[82] During the Inquest, it was reported that no DNA was detected on the knife. Police failed to conduct tape lifts for DNA testing from other items found around the bed in which Dr Mahlo was found items. The significance of the report of no DNA on the knife in Dr Mahlo's chest and no fingerprints or DNA evidence on any of the other items at the death scene was not commented upon by the Coroner in her findings.

[79] *Inquest Findings*, n 30, 5 [7].

[80] *Inquest Findings*, n 30, 5 [6].

[81] *Inquest Findings*, n 30, 5 [4].

[82] From October 2007, rather than extracting DNA manually from specimens collected at crime scenes, Queensland Forensic and Scientific Services used an automated system. On December 2022, a Commission of Inquiry found that the automated method yielding up to 92% less DNA than the manual option. The Commission of Inquiry found "serious" failures caused by a series of factors including "mismanagement" and "dishonesty by senior managers". In October 2023, the Queensland Health Minister announced a further review after it was revealed that another 7,000 cases had been compromised since the initial inquiry into the testing at the laboratory. The total number of affected cases was estimated to be up to 37,000.

Police did not seize the bedspread and linen. Since no comprehensive photographic recording was made of the death scene, no blood stain analysis could be performed to determine how the blood stains on the bedding and pillows may have been caused.

No searches were performed on any vehicles or properties associated with Mr Hehir. No footage was obtained from overhead traffic monitoring cameras or closed-circuit television cameras on houses or buildings either near Dr Mahlo's residence or Mr Hehir's residence in Cotton Tree or his office in Maroochydore which might have shown Mr Hehir's movements from when he left Dr Mahlo's Moffatt Beach address in the early evening of 27 May 2008

There was no examination of the activity on Mr Hehir's mobile phone from when he said he left Dr Mahlo's house at 6.30 pm on 27 May 2008 until 4.30 am on 28 May 2008, when he claimed that he noticed the "missed call" from Dr Mahlo. It was not established whether Mr Hehir's mobile phone was turned off during any of that period or whether his self-report of his movements could be confirmed from an analysis of mobile phone signals to phone towers.

By January 2011, when Mr Hehir became "a person of interest", too much time had elapsed to review any footage from closed-circuit cameras or the security service at Mr Hehir's premises at Maroochydore or footage from overhead traffic monitoring cameras or closed-circuit television cameras on nearby houses or buildings which might have shown Mr Hehir's movements during the evening and night of 27 May 2008 and the early hours of 28 May 2008.

The failure of the police to collect any of this evidence soon after Dr Mahlo was found dead was not commented upon by the Coroner in her findings.

Mr Hehir's Formal Statement to Police, 28 May 2008

Mr Hehir was conveyed by police from Dr Mahlo's residence to the Caloundra police station to be interviewed. No electronic video recording was made of the interview at the police station. Without the presence of a lawyer, Mr Hehir provided a detailed account which was subsequently formalised in a 2,600-word statement of 48 separate paragraphs.

Police noted that Mr Hehir denied being at Dr Mahlo's home when the computer was used in the early hours of the morning of 28 May 2008, and he denied accessing the computer. Police were not able to ascertain from the security access system the times when the swipe card Mr Hehir had in his possession was used to access Dr Mahlo's house.

The Death Scene Not Secured by Police

The investigating police made only perfunctory attempts to collect evidence and neglected to take even the most fundamental steps to maintain the integrity of the death scene.

After he was interviewed at the police station, at approximately 11.30 am, Detective Constable Allen drove Mr Hehir back to where his vehicle was parked outside Dr Mahlo's house which had not been secured by police.

In her subsequent sworn statement and in her evidence to the Inquest, Detective Constable Allen said that when they returned to outside Dr Mahlo's house, she specifically told Mr Hehir that he was not to enter the house until Dr Mahlo's family had given him permission.

On 20 January 2011, after Mr Hehir became "a person of interest", he was formally interviewed by police. No electronic audio recording was made of the formal interview. During the interview, Mr Hehir claimed that after he was driven back to Dr Mahlo's house by Detective Constable Allen, he did not enter the house. During third day of the Supreme Court proceedings , when he was cross-examined about what he did when Detective Constable Allen drove him back to Dr Mahlo's residence, Mr Hehir said: "I know I didn't walk through the house … I don't know whether I took a step inside or not. If I went in the house it was only by one step."[83]

[83] Inquest, Transcript 3–4, from line 20.

However, during his evidence at the Inquest, Mr Hehir contradicted the evidence of Detective Constable Allen and testified that after he asked Detective Constable Allen if he could collect a few of his belongings from the home office including some "documents", he did enter Dr Mahlo's house and went to the downstairs office.[84] When counsel assisting the Coroner later asked Mr Hehir whether police had given him permission to remove items from Dr Mahlo's office, Mr Hehir answered that he had been given permission by the police.[85]

Counsel assisting the Coroner did not put to Mr Hehir the statement of Detective Constable Allen who testified that she specifically told Mr Hehir that he was not to enter the house.

Counsel assisting the Coroner did not put to Mr Hehir the inconsistency between what he said when he was formally interviewed by police on 20 January 2011 and his sworn evidence during the hearing into the contested will on 10 August 2011 and his evidence during the Inquest that, against the specific direction of Detective Constable Allen, he had indeed entered Dr Mahlo's house and removed items of evidence.

Mr Hehir's Use of Dr Mahlo's Computer, Afternoon of 28 May 2008

On 11 January 2011, nearly two and half years after Dr Mahlo's death, police seized Mr Hehir's laptop. A forensic examination established that "John's USB" had been inserted into Mr Hehir's laptop on 24 and 31 July 2008 and 13 February 2009.[86]

Under close questioning during the Inquest, Mr Hehir conceded that if the memory stick labelled "John's USB" was in Dr Mahlo's computer on 28 May 2008 when he entered the house, he would "certainly" have removed it from Dr Mahlo's house.[87] Mr Hehir testified that subsequent to Dr Mahlo's death, he had used "John's USB".

The Coroner was satisfied that this proved "conclusively" that sometime in the afternoon on 28 May 2008, Mr Hehir removed "John's USB" from Dr Mahlo's computer. However, "John's USB" has never been located by police, nor can it be determined what was stored on the "John's USB" before 28 May 2008.[88]

Forensic Examination of Dr Mahlo's Computer

On 27 June 2008, Dr Mahlo's computer was forensically examined. The note addressed to Dr Mahlo's two adult children and the note addressed to Mr Hehir were not created or saved as a "document" on Dr Mahlo's computer. Since there was no record of either of these notes having been created on the computer, it is likely that the two notes were printed from an external device like a USB memory stick. The forensic examination of activity showed that the document titled "Suicide John" was also accessed at 1:20 pm on the afternoon of 28 May 2008.[89] Dr Mahlo's daughter told police she did not enter Dr Mahlo's house until 4:00 pm that afternoon and that when she did, the suicide note was "open" on the screen.

During the Inquest, when he was asked directly whether he logged on to the computer during the afternoon of 28 May 2008, Mr Hehir answered:

> I don't know whether I logged on or not.[90]

[84] Inquest, Transcript 3–59, from line 9.

[85] Inquest, Transcript 3–61, from line 42.

[86] Inquest, Transcript 3–62, from line 43.

[87] Inquest, Transcript 3–16, from line 25, *Inquest Findings*, n 30, 6 [1].

[88] *Inquest Findings*, n 30, 6 [3].

[89] *Inquest Findings*, n 30, 6 [4].

[90] Inquest, Transcript 3–60, from line 33.

In her subsequent findings, the Coroner observed:

> Consistent with the evasive and calculated manner of responding to questions at the Inquest, Mr Hehir said "I don't want to tell you that I didn't if you saw I did."[91]

The Coroner held that in all of the circumstances, it was most likely that at 1:20 pm in the afternoon of 28 May 2008 (nearly two hours after he had been dropped off at the address by the police), Mr Hehir was inside the house and had accessed Dr Mahlo's computer.[92] The Coroner did not speculate upon why Mr Hehir had previously given false testimony during the Supreme Court hearing that he had not entered Dr Mahlo's house and accessed her computer on the afternoon of 28 May 2008.

The Police Report of the Phone Conversation with Dr Mahlo's Treating Psychiatrist Dr Fraser, 28 May 2008

In the early afternoon of 28 May 2008, police contacted Dr Mahlo's treating psychiatrist Dr Clive Fraser by phone and created a brief (300-word) report of the conversation which was later tendered at the Inquest:

> Six to eight weeks ago [Dr Mahlo] had a very large overdose. Previously she has cut her wrists and nearly blead (sic) to death. She has a significant drinking problem and as a result exhibited behavioural difficulties and was irrational. On the 23rd May 2007 she cut her right wrist. In April of 2007 she took pills and cut herself, slicing a large artery in her ankle … I understand Karen and her partner John had recently split up. I understand that John has been supportive of Karen and I am unaware of any recent conflict between them. Any conflict often appears to have resulted from excessive alcohol consumption by Karen.

During the subsequent Inquest, Dr Fraser emphasised in his evidence that he had written to police on two occasions (1 July 2008 and 10 March 2009) to advise that the account in the short police report of the phone conversation was completely inaccurate. Dr Fraser advised that Dr Mahlo's previous self-harm consisted of superficial cutting only to her right wrist and left ankle which did not require suturing. Dr Fraser also emphasised in his statement that he did not say that Mr Hehir had been "very supportive" of Dr Mahlo or that he was "unaware of any recent conflict between them". Dr Fraser advised that during the phone conversation with police, he specifically said that he knew there had been significant conflict between Dr Mahlo and Mr Hehir and that Dr Mahlo had said that she had ended the relationship with Mr Hehir in April 2008. Dr Fraser was concerned that this early misrepresentation of the content of his phone conversation with police may have misled the subsequent police investigation.

The Contested Will

Proceedings in the Supreme Court in Mahlo v Hehir, 8–10 August 2011

Dr Mahlo's brother Brett brought an application for a declaration that a document entitled "Last Will and Testament of Karen Lee Mahlo" created on 8 May 2008 and further amended on 15 May 2008 which was found on Dr Mahlo's computer contained Dr Mahlo's testamentary intentions within the meaning of s 18 of the *Succession Act 1981* (Qld). The application was supported by Dr Mahlo's two adult children, who were not represented in the proceedings. The application was opposed by Mr Hehir who was the executor and principal beneficiary of a will which was in the form of a paper document which Dr Mahlo had signed on 14 February 2008.[93] During the three-day hearing, Dr Mahlo's father John and mother Beverley and her sister-in-law Ceinwen gave oral evidence, as did Detective Constable Allen and Dr Mahlo's friend Dr Jennifer Ruhno. Neither Dr Mahlo's brother Brett, her general practitioner, Dr Stephen Phillips, nor her psychiatrist, Dr Fraser, gave evidence during the hearing.

Although in his oral evidence Mr Hehir suggested that he had only "some part" in drafting the will dated 14 February 2008 (and later amended on 27 February 2008), the Court found that it was probable that Mr Hehir had drafted that will "in its entirety".[94]

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[91] *Inquest Findings*, n 30, 6 [7]; Inquest, Transcript 3–60, from line 37.

[92] *Inquest Findings*, n 30, 6 [9].

[93] *Mahlo v Hehir* (2011) 4 ASTLR 515, [2]; [2011] QSC 243.

[94] *Mahlo v Hehir* (2011) 4 ASTLR 515, [14]; [2011] QSC 243.

In his opening, Mr Hehir's counsel summarised Mr Hehir's evidence of what occurred after he was interviewed at the police station on the morning of 28 May 2008.

> He will say that, really, the day is somewhat of a blur but he did assist ambulance officers and assist the police. He was subsequently returned to the premises later in the morning by the police, to his vehicle. He will say that he did not enter the premises; that he certainly got out and walked into the yard but at no time did he enter the premises at William Street on that day. He says he will tell the court that he's in fact only been back to the premises on two occasions to collect minor items of property, once in the presence of a real estate agent and then subsequently with the permission of the real estate agent but well after the property had in fact been vacated by other persons. So he certainly had no access, on his version, to the computer at the deceased's. That is the evidence that will be lead from Mr Hehir.[95]

When he was asked by his counsel what he recalled of the conversation he had with Dr Mahlo on the evening of 27 May 2008, Mr Hehir testified that he could not remember what he discussed with Dr Mahlo: "I have just gone blank."[96]

Mr Hehir's counsel did not ask Mr Hehir any questions about what occurred after he was brought back to Dr Mahlo's address by the police in the late morning of 28 May 2008. During cross-examination, Mr Hehir was taken to the interview on 20 January 2011 when he told police that he could not remember going inside the house because it was "all so fuzzy".

> Yes. I went to the door and I stood at the door. Whether I took a step inside, I don't know. I know I opened the door though … But I don't recall, to this day, I can't tell you whether I did or I didn't.[97]

Mr Hehir was asked further questions to confirm that he did not enter Dr Mahlo's house:

> I know I didn't walk through the house. I know I got to the door … If I went in the house it was only by one step.[98]

In his closing address, counsel representing Mr Hehir again emphasised that after police drove him back to Dr Mahlo's address on the morning of 28 May 2008, Mr Hehir "did not re-enter the house".[99]

The Decision of the Supreme Court in Mahlo v Hehir, 19 August 2011

The Court found that after the relationship with Mr Hehir had broken down, Dr Mahlo had created a document entitled "Last will and testament.docx" which was last modified on 15 May 2008.[100] The Court accepted the evidence of Dr Mahlo's 81-year-old father that sometime in May 2008 when he was staying with Dr Mahlo in Moffatt Beach, Dr Mahlo had shown him a printed and signed version of her "new" will.[101] The Court found that while the evidence indicated that the "electronic document" was printed and signed by Dr Mahlo, no signed paper version of this document could be produced after her death.[102]

The Court noted that during the afternoon of 28 May 2008, Brett Mahlo's wife Ceinwen, in the absence of her husband, answered a call from Mr Hehir to her home in Orange. Ceinwen Mahlo testified that she had not met or ever spoken to Mr Hehir previously.[103] The Court accepted the evidence and accuracy of a diary note made by Ceinwen Mahlo:

> Spoke about will and thinks Karen has a second one which he believes Brett was the executor although he has never seen it. Said he is the executor of other will.[104]

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[95] *Mahlo v Hehir* (2011) 4 ASTLR 515; [2011] QSC 243, Transcript 2–24 from line 16.

[96] *Mahlo v Hehir* (2011) 4 ASTLR 515; [2011] QSC 243, Transcript 2–40 from line 29.

[97] *Mahlo v Hehir* (2011) 4 ASTLR 515; [2011] QSC 243, Transcript 3–3 from line 51.

[98] *Mahlo v Hehir* (2011) 4 ASTLR 515; [2011] QSC 243, Transcript 3–4 from line 19.

[99] *Mahlo v Hehir* (2011) 4 ASTLR 515; [2011] QSC 243, Transcript 3–28, from line 15.

[100] *Mahlo v Hehir* (2011) 4 ASTLR 515, [4]; [2011] QSC 243.

[101] *Mahlo v Hehir* (2011) 4 ASTLR 515, [29]; [2011] QSC 243.

[102] *Mahlo v Hehir* (2011) 4 ASTLR 515, [5]; [2011] QSC 243.

[103] *Mahlo v Hehir* (2011) 4 ASTLR 515; [2011] QSC 243, Transcript 1–89, from line 50.

[104] *Mahlo v Hehir* (2011) 4 ASTLR 515, [36]; [2011] QSC 243.

In relation to the significance of the content of the phone conversation between Brett Mahlo's wife and Mr Hehir, the Court found:

> Perhaps Dr Mahlo had told him of her intention to appoint the plaintiff as her executor, although there is no note or e-mail which records that communication. There is also the possibility that he had seen the electronic document or perhaps the printed version, which had disclosed that matter, although that is disputed by Mr Hehir.[105]

The Court also noted the evidence of long-time friend Dr Jennifer Ruhno who, on hearing the news of Dr Mahlo's death, immediately travelled to the Sunshine Coast and on 30 May 2008, went with Dr Mahlo's mother and daughter Anna to the house and was able to print a copy of the "electronic document" which was still stored on Dr Mahlo's computer.[106]

During proceedings, Justice McMurdo had asked counsel representing Mr Mahlo on two occasions whether Dr Mahlo's printer had been examined. On the first occasion counsel answered that the "printer was in the possession of the police"[107] and on the second occasion counsel answered: "I understand that it [the printer] was with the police but we can see if we can clarify that issue."[108] The Court heard that Dr Mahlo's printer has never been forensically examined.[109]

The Court considered the joint report of two computer experts[110] that an examination of the digital evidence of the print spool data on the computer could not confirm or exclude that any documents, including the document entitled "Last will and testament.docx" and the so-called "suicide notes" had been printed in the early hours of 28 May 2008.[111] The experts were able to identify that one of the "suicide notes" was printed at 1.20 pm on the afternoon of 28 May 2008.[112] Since the experts were not able to say that their examination of Dr Mahlo's computer showed categorically that the "new" will had been printed, the experts were not called to give oral evidence.[113]

The Court held that while Dr Mahlo had clearly intended to make and sign a "new will" in which Mr Hehir was not a beneficiary, she had either not done so prior to her death or that the more recent "new will" had been destroyed and, as a consequence, could not be produced.[114]

> Accordingly, the claim will have to be dismissed. The outcome is far from satisfactory, because according to the evidence and my findings, Dr Mahlo made a document which she intended to be her will. But that is not the document the subject of this claim. There was no alternative claim to have the paper document, which cannot be found, declared to be her will.

Dr Mahlo's "New Will"

During the subsequent Inquest, Mr Hehir was asked whether he recalled making a phone call to Dr Mahlo's brother Brett during the afternoon of 28 May 2008 and having a phone conversation with Brett Mahlo's wife Ceinwen in which he referred to the possibility that Dr Mahlo had made a "second will". Mr Hehir answered:

> I don't recall having that conversation with [Ceinwen] on that day. If I did, it would have been because she brought it on.[115]

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[105] *Mahlo v Hehir* (2011) 4 ASTLR 515, [36]; [2011] QSC 243.

[106] *Mahlo v Hehir* (2011) 4 ASTLR 515, [37]; [2011] QSC 243.

[107] *Mahlo v Hehir* (2011) 4 ASTLR 515; [2011] QSC 243, Transcript 1–15, from line 21.

[108] *Mahlo v Hehir* (2011) 4 ASTLR 515; [2011] QSC 243, Transcript 1–16, from line 19.

[109] *Mahlo v Hehir* (2011) 4 ASTLR 515; [2011] QSC 243, Transcript 1–15 at 24.

[110] Report of Robert Atkins and Stan Gallo, forensic computer expert, Document number 2 Exhibit 2, Transcript 1–14, from line 24. Addendum Report 1–15, from line 40; also 2–14.

[111] *Mahlo v Hehir* (2011) 4 ASTLR 515; [2011] QSC 243, Transcript p 2–15, from line 48.

[112] *Mahlo v Hehir* (2011) 4 ASTLR 515; [2011] QSC 243, Transcript 2–15, from line 48.

[113] *Mahlo v Hehir* (2011) 4 ASTLR 515; [2011] QSC 243, Transcript 2–15, from line 48.

[114] *Mahlo v Hehir* (2011) 4 ASTLR 515, [44]; [2011] QSC 243.

[115] Inquest, Transcript 3–70, from line 16.

Counsel assisting the Coroner asked Mr Hehir: "Did Dr Mahlo tell you she was wanting to revert to having her brother Brett as executor of the will and that the property would be left to the children, apart from a sum of money to be left to her parents?" Mr Hehir answered: "No, she didn't." Counsel assisting the Coroner later put to Mr Hehir his affidavit to the Supreme Court in the civil proceedings relating to the contested will: "look at paragraph 92 of your affidavit. Do you recall what you said there?"

> I did not mention the alleged second will to [Ceinwen].[116]

Counsel assisting the Coroner asked further questions: "in paragraph 92 of your affidavit you didn't put any equivocation about it or that you can't recall. You said "I did not mention the alleged second will to [Ceinwen] … And that's different from 'I can't recall if I said that, but I may have' Do you accept that?" Mr Hehir answered: "Yes, I accept that. I can't recall."[117]

Counsel assisting the Coroner took Mr Hehir to a later phone conversation he had with Dr Mahlo's brother Brett. "I suggest it was on the 29th of May 2008 you called Brett Mahlo on his mobile phone".

> Mr Hehir answered: "We spoke. I don't recall who rang who, but if that's what's there, that's probably what happened."[118]
>
> Counsel: "Do you recall saying to Brett Mahlo, 'There are two wills. I blame myself for Karen's death. The night before Karen died we had a big argument on the phone?'"
>
> Mr Hehir: "No. I don't recall that. I recall being disgusted at that day and I got off the phone and rang the solicitor because Brett … they were focused and adamant on the will. They were adamantly … Karen's estate. She had only died hours earlier…"[119]
>
> Counsel: "Do you agree that you said to Brett Mahlo on the 29th of May 2008 that there were two wills?"
>
> Mr Hehir: "I don't recall."[120]
>
> Counsel: "Well, is that meaning that you may have, and you can't remember, or it didn't happen?"
>
> Mr Hehir: "If he asked me, I may have said to him that Karen was working on another will. I don't remember."[121]
>
> Counsel: "Okay. Because in your affidavit to the Supreme Court you were quite adamant at paragraph 44. And you said, 'I deny I said to Brett Mahlo that there were two wills?'"
>
> Mr Hehir: "I'm not going to state … sit here though and tell you that I remember something that I don't."[122]
>
> Counsel: "Do you recall saying to Brett Mahlo, 'I blame myself for Karen's death.'"?
>
> Mr Hehir: "I do not remember saying that, but most likely I would have."[123]
>
> Counsel: "Do you also recall saying to Brett Mahlo that, 'The night before Karen died, we had a big argument on the phone.'?"
>
> Mr Hehir: "I don't recall saying that to him."[124]
>
> Counsel: "Is that the situation that you may have but you can't remember now?"
>
> Mr Hehir: "I don't think I spoke to Karen on the night before the phone, but I may have … I'm sure the phone records will show."[125]
>
> Counsel: "You certainly accept in your evidence that you had an argument with her sometime that day, that is, the 27th of May 2008, where nasty things were said?"

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[116] Inquest, Transcript 3–71, from line 23.

[117] Inquest, Transcript 3–71, from line 46.

[118] Inquest, Transcript 3–72, from line 5.

[119] Inquest, Transcript 3–72, from line 8.

[120] Inquest, Transcript 3–72, from line 27.

[121] Inquest, Transcript 3–72, from line 30.

[122] Inquest, Transcript 3–72, from line 36.

[123] Inquest, Transcript 3–72, from line 39.

[124] Inquest, Transcript 3–73, from line 2.

[125] Inquest, Transcript 3–73, from line 4.

> Mr Hehir: "I don't remember. And – but it was written in there in my statement, but I honestly can't remember. And I'm not going to tell you I remember something that I don't."[126]

The Whereabouts of Dr Mahlo's Printer

During the Inquest, Mr Hehir testified that sometime after Dr Mahlo's death, he arranged to access the storage facility in Kunda Park (an industrial suburb of the city of Buderim in the Sunshine Coast Region) where Dr Mahlo's possessions were stored pending the resolution of her estate. Mr Hehir testified that he did this with the consent of the administrator and was accompanied at all times by an estate agent employed by LJ Hooker, Mooloolaba.[127] The Coroner was highly critical of Mr Hehir's evidence:

> I do not accept his account, subsequently contradicted by the estate agent, that the agent remained in attendance for all of the time Mr Hehir was at the storage facility. He said he wanted to recover some items of furniture, but at [the] inquest, it appeared he accidentally said he was there to pick up "documents".[128]

It was later established by police that the printer from Dr Mahlo's house was no longer in storage and could not be located. During the Inquest, counsel assisting the Coroner questioned Mr Hehir about Dr Mahlo's printer:

> Counsel: "Do you know what happened to the printer in Dr Mahlo's office?"
>
> Mr Hehir: "I would suggest it was still there until the police, you know, whether they've taken it. I would imagine that they would have – I don't know what happened to that printer. It still would have been there for some time I'd imagine."[129]
>
> Counsel: "Were you aware that an inventory was done of all items that were put into storage from Dr Mahlo's estate?"
>
> Mr Hehir: "I would assume that."[130]
>
> Counsel: "Were you aware that a printer from her office was put on that inventory as going into storage?"
>
> Mr Hehir: "No. I wasn't aware of it."[131]
>
> Counsel: "And when it was searched for afterwards, that is, after you had been there to collect whatever item you wanted, the printer could not be found. Are you aware of that?"
>
> Mr Hehir: "No. I'm not."[132]
>
> Counsel: "Are you responsible for removing that printer?"
>
> Mr Hehir: "No, I'm not"[133]

In relation to the disposal of the printer, in her findings, the Coroner made only brief passing reference to its significance and did not comment on Mr Hehir's claim that he did not remove the printer from the storage facility:

> "None of these matters are directly relevant to the cause of Dr Mahlo's death, but they were all matters that led her family to be concerned." [134]

The Coroner also noted that despite Mr Hehir's repeated protestations that his relationship with Dr Mahlo was not over at the time of her death, within three months of her death, Mr Hehir had formed a new relationship and later married that woman.[135]

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[126] Inquest, Transcript 3–73, from line 10.

[127] Inquest, Transcript 3–64, from line 15.

[128] *Inquest Findings*, n 30, 7 [1].

[129] Inquest, Transcript 3–63, from line 37.

[130] Inquest, Transcript 3–63, from line 36.

[131] Inquest, Transcript 3–63, from line 38.

[132] Inquest, Transcript 3–63, from line 44.

[133] Inquest, Transcript 3–63, from line 45.

[134] *Inquest Findings*, n 30, 7 [3].

[135] *Inquest Findings*, n 30, 7 [4].

Unsigned Notes Left in Printer Tray

Dr Mahlo's children found the so-called "suicide note" to be incongruous:

> Anna and Ben,
>
> I can't go on any longer. I have hurt so many people and keep hurting them and don't want ever to hurt anybody again.
>
> You have both made it very clear to me how I have let you down and I don't want to ever do that again and I know that I haven't been a good mother to either of you. Anna you said that I haven't helped you get "the life skills" you needed, you have enough life skills to get you through. Ben you always say I kicked you out of home, but you didn't give me much choice. You will both be fine.
>
> Mum

Dr Mahlo's children denied feeling "hurt" or being "let down" by their mother. More significantly, Dr Mahlo's children and her extended family and friends found the purported message to Mr Hehir even more incongruous:

> John,
>
> I do care for you so much, I'm so mixed up that I don't even know if I do still love you.
>
> I have hurt you so much and I can't do that any more. Please look after the kids when they need you and don't try to control them.
>
> K[136]

As she had told all her family and friends and her treating psychiatrist, Dr Mahlo had ended the relationship with Mr Hehir after he staged an "April Fools" Day prank which had distressed and humiliated her daughter Anna. There was no account from anybody that Dr Mahlo had previously said that she had "hurt" Mr Hehir. It was also highly unlikely that Dr Mahlo would ask Mr Hehir to look after "the kids" since neither her adult son nor her adult daughter liked or respected Mr Hehir. Both had been living independently and her son resided on the Gold Coast, some 160 kilometres south of the Sunshine Coast.

The Autopsy

The report of pathologist Dr Alex Olumbe[137] was prefaced by a brief "summary":

> According to police Form 1 the decedent was allegedly located at 5.10 am on 28th of May 2008 on her bed with a knife protruding from the chest wound following a welfare check. Queensland Ambulance Service attended and pronounced her life extinct at 5:30 am. Further information indicates that the decedent had on two previous occasions attempted suicide as recently as 12th April 2008 which required hospitalisation at Royal Brisbane and Women's Hospital. There were suicide/farewell notes addressed to the decedent's son and daughter.

At the time of the autopsy, the pathologist did not have any statement from Dr Mahlo's family doctor or psychiatrist and did not have access to Dr Mahlo's medical records. On 29 May 2008, the pathologist reported that when Dr Mahlo's body was presented for autopsy, there was a moderate amount of bloodstaining on the front and back of the pyjama suit top which was buttoned up the front. There was a horizontal wound through the sternum in the midline caused by a chef's knife which was in situ. The blade of the knife 30 mm wide. The medial end of the wound (closest to the midline) was "square backed" and the lateral end of the wound was "v-shaped" which indicated that the cutting edge of the blade of the knife was orientated laterally (outwardly to the left). The whole length of the 135 mm blade was imbedded in the chest through the pyjama top. The handle of the knife was 110 mm long and there was no guard on the handle of the knife.

[136] Transcript 3–50, from line 15.

[137] Dr Olumbe obtained his Bachelor of Science in Surgery and Master in Pathology at the University of Nairobi. Between 2021 and 2022, Dr Olumbe was the Queensland Acting Chief Forensic Pathologist. On 12 April 2023, Dr Olumbe was aged 50 when he died while having treatment at a Brisbane hospital.

Three Wound Tracks from a Single Central Chest Stabbing

The pathologist confirmed that although there was a single stabbing through the overlying clothing, there were three separate wound tracks in close proximity which was consistent with the knife being forced through the sternum and then being manipulated.[138]

The pathologist described three separate wound tracks which were likely to have occurred in the following order:

(1) Midline, with a wound track at approximately 90 degrees to the skin surface through the lower sternum at the level of the fifth rib, touching without penetrating the pericardial cavity; the path through the overlying clothing and skin into the chest with a depth of penetration of 40 mm was suggestive of a "severe" amount of force;[139]
(2) Without fully withdrawing the knife, a wound track through the medial left third intercostal muscle, perforating the pericardium and the pulmonary trunk; the path and depth of penetration of 130 mm was suggestive of use of a "mild" amount of force;
(3) Again, without fully withdrawing the knife, a wound track through the medial left fourth intercostal muscle penetrated through to the pericardium; the path and depth of penetration of 135 mm was suggestive of a "mild" amount of force).

The Cause of Death

The pathologist reported that although it was likely that the stabbing through the second wound track caused the most significant wound, the knife was actually found in situ in the third wound track.

During the Inquest, the pathologist's evidence was that although the wounds would not have caused immediate death, death due to hypovolaemic shock from blood loss and cardiac tamponade would have been "rapid".[140]

Incidental Injuries

There were two small superficial linear abrasions or scratch marks on the lateral margin of the chest wound. The pathologist reported that these were consistent with "tentative/hesitation marks" from the knife which the pathologist opined were commonly seen in cases of suicide in which the decedent subsequently inflicted significant stab wounds.[141]

As well as two distinct areas of bruising on the back of the left hand, the pathologist noted minor "nicks" on the palm and base of the thumb of the right hand which could have been caused by a "sharp implement" such as the "edge of a knife".[142]

The pathologist noted minor bruising on the back of the right hand which could have been caused by blunt impact such as the hand coming in contact with a wall or floor.[143] The pathologist did not posit any further explanation given that the body was found lying face up on the bed.

Although the subsequent toxicology results indicated that at the time of death Dr Mahlo was heavily intoxicated with alcohol, the pathologist testified that all these incidental injuries were too minor to be "defensive wounds".[144] The pathologist testified that any defensive injuries would have been more extensive and would likely also to be accompanied by other defensive wounds on the arms. The pathologist did not posit any further explanation for these incidental injuries.

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[138] *Inquest Findings*, n 30, 7 [10].

[139] *Inquest Findings*, n 30, 8 [9].

[140] Office of the State Coroner, Queensland, *Findings of the Inquest into the Death of Dr Karen Lee Mahlo* (13 June 2014) <https://www.coronerscourt.qld.gov.au/__data/assets/pdf_file/0009/265563/cif-mahlo-kl-20140613.pdf> Autopsy Report.

[141] *Inquest Findings*, n 30, 7 [7].

[142] *Inquest Findings*, n 30, 7 [8].

[143] *Inquest Findings*, n 30, 8 [1].

[144] *Inquest Findings*, n 30, 7 [8].

Although the pathologist also referred to old linear scarring on the right wrist and the medial aspect of her left ankle consistent with previous self-harm,[145] the pathologist did not note that these self-harm injuries were consistent with Dr Mahlo being left-handed.

The pathologist also reported that there was a circular 5 mm diameter red abrasion on the chin in the midline and a minor abrasion measuring 5 mm across on the lateral aspect of the middle of the right leg. Although Dr Mahlo was found lying face up on her bed, the pathologist did not posit an explanation for these injuries.

In her findings, the Coroner did not consider the possibility that the abrasion to the chin may have been incurred by an assailant grabbing Dr Mahlo from behind or restraining her. The autopsy report noted that there was no jewellery like rings on Dr Mahlo's fingers or earrings through her pierced earlobes. Since the body had been refrigerated, it was not possible to estimate the time of death from the body temperature at autopsy.

The Toxicology Results

Toxicology reported an alcohol level of 114 mg/100 mls which was consistent with substantial alcohol consumption prior to the time of death.[146] The sedative diazepam and its metabolite were detected at therapeutic levels. The anti-depressant citalopram and its metabolite were detected at slightly above therapeutic level and a low level of the hypnotic temazepam was also detected. No other drugs were detected.

No tablets particles were reported to have been found in the gastrointestinal tract. Since the levels of the medication indicated that the medication had been absorbed from the gastrointestinal tract, it can be concluded that the medications were taken at some time prior to death.

Review by the Independent Forensic Pathologist

The Office of the State Coroner obtained a report from forensic pathologist, Dr Linda Iles of the Victorian Institute of Forensic Medicine. Having been provided with a copy of the original autopsy report, toxicology certificate, crime scene photographs and photographs from the autopsy, Dr Iles was asked to limit her report to addressing only three questions:

(1) the degree of force required to push the knife through the sternum into the chest cavity;
(2) the presence of other injuries including fresh cuts to the hands; and
(3) whether the findings at autopsy were consistent with self-inflicted death.

In her five-page report, Dr Iles concluded "(1) I estimate that at least moderate force has been required to inflict these wounds. These degrees of force are relative and cannot be readily quantified in a meaningful way; (2) It is noted in the autopsy report that there two superficial scratches around the main stab wound to the chest and that these were thought to possibly represent hesitation marks. Whilst I cannot exclude this possibility, it is also possible, and in my view more probable, that these represent superficial injuries resulting from manipulation of the knife in the wound; (3) The presence of these features, as discussed above, does not exclude self-infliction. There is nothing in the autopsy findings that preclude the possibility of Dr Mahlo's wounds being self-inflicted death (sic). However, the features as described above do justify meticulous examine (sic) all other facts and circumstances surrounding the death of Dr Mahlo."

In her evidence during the subsequent Inquest, Dr Iles confirmed that the single wound into the chest comprised three tracks into the body. Dr Iles opined that while there was only one defect in the skin, the knife had been moved through the same defect with three separate movements.[147] Dr Iles noted that the site of the wound was significant as it was in the general vicinity of the heart.[148]

[145] *Inquest Findings*, n 30, 8 [2].

[146] *Inquest Findings*, n 30, 8 [1].

[147] Inquest, Transcript, 3–77, from line 26.

[148] Inquest, Transcript, 3–77, from line 37.

In relation to the two minor marks on the skin lateral to the stab wound in the chest, Dr Iles considered these were more suggestive of "movement of the knife" rather than typical hesitation marks. Dr Iles testified that in her experience, similar minor marks on the skin were commonly seen in the context of some type of movement.[149]

Although there was prominent old linear scarring on Dr Mahlo's right wrist and the medial aspect of her left ankle consistent with previous self-harming, Dr Iles completed her review without acknowledging that Dr Mahlo was actually left-handed. Dr Iles testified that the cuts to the palm and thumb of Dr Mahlo's right hand might be defensive wounds, but they could also be due to clumsy handling of the knife, or if the hand gripping the handle of the knife slipped forward and that part of the hand came in contact with the blade.[150] Dr Iles noted that the particular knife had a triangular metal handle and there was no "hilt" or barrier to guard the hand from extending onto the blade, particularly if the knife came up against firm resistance.[151]

During the Inquest, when she was asked whether the wound could be identified to be self-inflicted or homicidal, Dr Iles emphasised that it was always a question of considering all of the information rather than simply the pathological evidence.[152] In her oral evidence, Dr Iles emphasised two features which raised concern in the autopsy findings. First, Dr Iles said that the presence of three wound tracks from a single external wound was "unusual but not unheard of" in cases of suicide by stabbing.[153] Dr Iles testified that while one of the knife tracks went through the "breastbone" (sternum), the other two tracks did not involve the sternum.[154]

Second, Dr Iles opined that since the sternum was a "very hard … firm bony structure",[155] the assessment of force required to inflict the stab wounds was "problematic".[156] Dr Iles opined that the stab wound through the full thickness of the sternum would have required "at least severe force" and the other two tracks passing through skin and intercostal muscle would have required "at least moderate force". Dr Iles qualified these opinions by saying that the degree of force was relative[157] and could not be readily quantified in a meaningful way.

Dr Iles did not comment upon the probability that a person with Dr Mahlo's knowledge of anatomy would choose initially to stab herself through her pyjamas in the midline of sternum rather than between the ribs on the left side of her chest directly over her heart.

Dr Iles testified that a review of a series of case demonstrated that there was no single feature, nor was there a constellation of features that can reliably discriminate definitively between self-inflicted and homicidal stab wounds in any individual case.[158]

In her report, Dr Iles posited: "I do not consider the deceased's blood alcohol concentration as a useful discerning factor in determining whether the deceased did indeed take her own life." During the Inquest, Dr Iles opined that a blood-alcohol concentration of .114% would not render a person incapable of purposeful activity, particularly if that individual had a history of chronic alcohol use.[159]

[149] *Inquest Findings*, n 30, 9 [4].

[150] Inquest, Transcript, 3–77, from line 46; *Inquest Findings*, n 30, 9 [6].

[151] Inquest, Transcript, 3–78, from line 28; *Inquest Findings*, n 30, 9 [7].

[152] Inquest, Transcript, 3–78, from line 38.

[153] Inquest, Transcript, 3–79, from line 5; *Inquest Findings*, n 30, 9 [8].

[154] Inquest, Transcript, 3–79, from line 42.

[155] Inquest, Transcript, 3–80, from line 22.

[156] *Inquest Findings*, n 30, 9 [3].

[157] Inquest, Transcript, 3–80, from line 18.

[158] *Inquest Findings*, n 30, 9 [8].

[159] *Inquest Findings*, n 30, 10 [2].

Evidence of Dr Mahlo's Treating Psychiatrist

During the Inquest, Dr Mahlo's treating psychiatrist, Dr Fraser, testified that Dr Mahlo had a major depressive disorder complicated by intermittent alcohol abuse and, that at the time of her death, she was prescribed a combination of medications (escitalopram, diazepam, temazepam). Dr Fraser testified that Dr Mahlo's mental state deteriorated at various times in the context of stressors relating to her employment with Queensland Health and that increased alcohol use and problems in her relationship with Mr Hehir were additional stressors.[160]

Dr Fraser considered that the two self-harming incidents in early 2007 were not life-threatening. Although he considered Dr Mahlo was at chronic risk of suicide, Dr Fraser did not consider she needed inpatient treatment or that she was at imminent risk of serious harm after those incidents in early 2007.[161]

In September 2007, Dr Fraser became more concerned about her immediate risk of serious self-harm after an incident when Dr Mahlo was heavily intoxicated and cut off her long hair. Dr Fraser testified that since Dr Mahlo had used a sharp implement and because she had always been proud of her appearance, he was more concerned by that incident.[162] Dr Mahlo had also been drinking more and had not disclosed the extent of her drinking. Following that incident, Dr Mahlo had a two-week voluntary admission to the Buderim Private Hospital.

Dr Fraser testified that during a consultation on 3 April 2008, Dr Mahlo had said that on the previous day, she had ended the relationship with Mr Hehir and asked him to move out of her home.[163] On 12 April 2008, Dr Fraser was away on leave when Dr Mahlo had been drinking and took an overdose of prescribed medication. When asked about the context of the overdose, Dr Fraser testified that Dr Mahlo had become distressed when she discovered that Queensland Health staff members who had previously criticised her had been promoted.[164]

Dr Fraser testified that during a review on 8 May 2008, he was not surprised when Dr Mahlo confirmed that the relationship with Mr Hehir was over.[165] Dr Fraser testified that from his observations and interactions with both of them, he had formed the impression that Mr Hehir was very controlling and calculating with Dr Mahlo.[166] Dr Fraser testified that Mr Hehir had attended a number of consultations with Dr Mahlo and had also contacted him by phone and email and had sought to intervene in Dr Mahlo's treatment.[167]

When he was asked whether Dr Mahlo's mood might vary from being good to being depressed over a number of hours, Dr Fraser explained that her pervasive mood was depression which could fluctuate and may deteriorate with alcohol use, typically later in the day.[168]

Dr Fraser testified that Dr Mahlo was always well presented. He testified that he never observed Dr Mahlo to be intoxicated and he could never smell alcohol on her breath.[169] At the last consultation on 21 May 2008, after Dr Mahlo reported that she had not been drinking for a few days, Dr Fraser noted there was a positive improvement in her mood and that Dr Mahlo was also prepared to make compromises in the negotiations about the conditions for her return to work with Queensland Health.[170]

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[160] *Inquest Findings*, n 30, 12 [1].

[161] Transcript 3–28, from line 30.

[162] Inquest, Transcript 3–28, from line 41, *Inquest Findings*, n 30, 12 [4].

[163] Inquest, Transcript 3–30, from line 5.

[164] Inquest, Transcript 3–27, from line 24.

[165] Inquest, Transcript 3–29, from line 40.

[166] Inquest, Transcript 3–30, from line 10.

[167] *Inquest Findings*, n 30, 13 [1].

[168] Inquest, Transcript 3–31, from line 2; *Inquest Findings*, n 30, 12 [3].

[169] Inquest, Transcript 3–32, from line 5.

[170] *Inquest Findings*, n 30, 12 [5].

Dr Mahlo's Funeral

At the request of Dr Mahlo's family, on 6 June 2008, Dr Fraser attended Dr Mahlo's funeral service. In his evidence to the Inquest, Dr Fraser testified that he was present when Mr Hehir spoke during the funeral service. He considered Mr Hehir's behaviour gave a "false impression"[171] and was very unusual and out of all proportion. Dr Fraser testified that after appearing extremely distressed, Mr Hehir was able to compose himself and read a written statement before suddenly decompensating to such a gross extent that he had to be assisted to his seat.[172] Dr Fraser testified that he formed the opinion that Mr Hehir's behaviour was "very strange".[173]

The Coroner noted that after Dr Fraser became aware of certain information, he reported his concerns to the police.[174]

Final Submissions by Counsel Assisting the Inquest

Neither Dr Mahlo's parents, brothers nor her general practitioner were called to give evidence during the Inquest nor did the Inquest hear evidence from Dr Fredericks, Dr Mahlo's friend, Dr Jennifer Ruhno or any of her neighbours. Dr Mahlo's family were not represented during the inquest. Only Mr Hehir and Dr Mahlo's psychiatrist were represented by counsel.

On the afternoon of the third day of the Inquest, counsel assisting the Coroner made only very brief submissions which took less than four minutes. Counsel submitted that the "preponderance of evidence" tended to establish that "Dr Mahlo mostly took her own life" in the context of a "significant history of major depression".[175] "She was unfortunately, it seemed, drinking heavily against the advice of her psychiatrist" and the notes found on the printer were clearly "farewell notes" to her former partner and to her children.[176]

Counsel referred to "a number of curious and suspicious circumstances" about the case and added: "My clear submission is that you would not have found Mr Hehir as an impressive witness and his evidence was contradicted in a number of significant matters."[177] Without making any reference to the printer which has never been located, counsel referred to the finding of activity on Dr Mahlo's computer in the early hours of 28 May 2008:

> There are some concerning matters about the USB stick that cannot be found, which seems to have been plugged into the computer at about 2.30 am and when opened seems to create these notes. Suspicion clearly followed Mr Hehir for the obvious reason that he was the person to find Dr Mahlo and he clearly had a financial motive.[178]

Without enlarging on the significance of this finding, counsel submitted:

> No doubt in the hours and even days and weeks following the death of Dr Mahlo, Mr Hehir was anxious to shore up his position and protect his rights under what he considered to be the lawful will. The pathologist's evidence does not assist other than to indicate that there doesn't appear to be any real evidence that there was the sustained attack against Dr Mahlo that would be indicated by defensive wounds … There was no evidence of a struggle or any violence and no evidence that there was screaming or sounds of a violent altercation in the house.[179]

[171] *Inquest Findings*, n 30, 13 [7].

[172] Inquest, Transcript 3–32, from line 44.

[173] Inquest, Transcript 3–32, from line 2.

[174] *Inquest Findings*, n 30, 13 [8].

[175] Inquest, Transcript 3–82, from line 43.

[176] Inquest, Transcript 3–83, from line 1.

[177] Inquest, Transcript 3–83, from line 5.

[178] Inquest, Transcript 3–83, from line 16.

[179] Inquest, Transcript 3–83, from line 27.

Counsel made no reference to the fact that at the time of her death, Dr Mahlo would have been heavily intoxicated with alcohol and the injuries to her right hand were inconsistent with Dr Mahlo being left-handed. Counsel assisting the Coroner made no reference to the fact that the knife had been thrust through a pyjama top and through the sternum.

Coroners Act 2003 (Qld)

By s 45(2) of *Coroners Act 2003* (Qld), a coroner investigating a death must, if possible, find how the person died and what caused the person to die. By s 46(3), the coroner must not include in the comments any statement that a person is or may be guilty of an offence or civilly liable for something.

By s 50(1), a person dissatisfied with a finding at an inquest may apply to the State Coroner or the District Court to set aside the finding. By s 50(2), the person may apply to the District Court even if, on an application based on the same or substantially the same grounds or evidence, the State Coroner has refused to set aside the finding.

By s 50(5), the District Court may set aside a finding if satisfied new evidence casts doubt on the finding, there was no evidence to support the finding, or the finding could not be reasonably supported by the evidence.

By s 50(7), if the District Court sets aside a finding, the District Court may order the State Coroner to re-open the inquest to re-examine the finding or hold a new inquest.

By s 50(8), a Coroner who has re-opened an inquest or is holding a new inquest, under this section, may accept any of the evidence given, or findings made, at the earlier inquest as being correct.

On 27 September 2006, the Queensland Coroner found that an Indigenous man named Cameron Doomadgee (who was also known as Mulrunji) died "from intra-abdominal haemorrhage due to, or as a consequence of, the rupture of his liver and portal vein"[180] and that Senior Sergeant Hurley, the senior police officer on Palm Island, caused these injuries.[181]

In *Hurley v Clements*, the Court of Appeal held[182] that s 50(5)(d) permits the District Court to set aside a finding by a coroner only if satisfied that "the finding could not be reasonably supported by the evidence". In the application of this test, the circumstance that the evidence reasonably supported possible findings different from those made by the coroner would not warrant the setting aside of the finding made by the coroner if that finding too was reasonably supported by the evidence. The Court of Appeal concluded[183] that the coroner's finding as to the cause of death was not reasonably open on the evidence, because there was no medical evidence which supported the conclusion reached by the coroner, and there was evidence from one medical witness, not effectively contradicted, which was directly inconsistent with the conclusion reached by the coroner. The Court of Appeal concluded that as a result it was appropriate to set aside the whole of the finding of the coroner as to how the deceased died, and to order the re-opening of the inquest to re-examine that finding.

Findings of the Inquest – Time of Death

The Inquest into Dr Mahlo's death was held over four days between 5 December 2013 and 12 February 2014 and included a review the chronology of the phone calls to and from Dr Mahlo's residence and the activity on her computer. On 13 June 2014 the findings of Coroner Christine Clements were published. Although the last activity on Dr Mahlo's computer occurred at 3:29 am, the Coroner held that it could be "inferred" that Dr Mahlo died sometime between 3:06 am and 5.00 am on 28 May 2008.[184]

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[180] *Inquest into the Death of Mulrunji* Unreported, Acting State Coroner Clements, Coroners Court at Townsville, Qld, 27 September 2006, 28; see also R Scott, "Inquest into the Death of Cameron Doomadgee" (2010) 17(5) JLM 677; R Scott Bray, "Death Scene Jurisprudence: The Social Life of Coronial Facts" (2010) 19(3) *Griffith Law Review* 567.

[181] See also C Hooper, *Tall Man: The Death of Doomadgee* (Simon and Schuster, 2009).

[182] *Hurley v Clements* [2010] 1 Qd R 215, [33]; [2009] QCA 167.

[183] *Hurley v Clements* [2010] 1 Qd R 215, [48]; [2009] QCA 167.

[184] *Inquest Findings*, n 30, 10 [4].

Findings of the Inquest – Cause of Death

The Coroner held:

> The presence of three wound tracks passing through a single external wound and the perforation of the sternum by one of the wound tracks were features raising concern. But, these did not exclude self-infliction. There was nothing in the autopsy findings that precluded the possibility of Dr Mahlo's wounds being self-inflicted.[185]

In her findings, the Coroner did not consider whether it was incongruous that a person who had decided to suicide would take only a therapeutic amount of her anti-depressant and sedating medication before stabbing herself in the chest.

Although the Coroner referred to the finding of "old scarring on the wrist consistent with previous self-harm",[186] the Coroner neglected to qualify that finding as being on the right wrist which showed that Dr Mahlo was left-handed.[187]

The Coroner did not comment upon the following:

- the likelihood that Dr Mahlo would have been able to type two letters on her computer while heavily intoxicated as late as 3:29 am on 28 May 2008;
- the force and determination required to thrust a large knife (held in her non-dominant hand) through her pyjama top while heavily intoxicated;
- the determination required to force a knife through her sternum; or
- the difficulty Dr Mahlo would have had withdrawing the knife from her sternum and then forcing the knife twice back through the same wound in her chest while heavily intoxicated

Findings of the Inquest – Circumstances of Death

In her findings, the Coroner largely paraphrased the submissions made by assisting counsel. The Coroner referred to the opinion of the treating psychiatrist that Dr Mahlo was at chronic risk of suicide and that her history showed episodes of self-harm escalating over time and typically triggered by additional stressors and alcohol against a background of major depression.[188] The Coroner posited that on the day immediately prior to her death, Dr Mahlo was struggling with the termination of her relationship with Mr Hehir.[189] The Coroner did not qualify that speculation by highlighting that it was actually Dr Mahlo who had terminated the relationship. The Coroner did not refer to the evidence of Dr Mahlo's daughter Anna who testified that her mother sounded relieved that she had ended her relationship with Mr Hehir and also that Dr Mahlo was optimistic about her improved work prospects.

The Coroner noted that Mr Hehir was angry at the loss of his expectation of a life-long relationship, including a significant financial enhancement to his lifestyle from Dr Mahlo's earning capacity and assets.[190] The Coroner noted that during 27 May 2008, there were long and acrimonious arguments between Mr Hehir and Dr Mahlo, over the phone and in person. The Coroner further noted the toxicology results confirmed that at least during the course of the evening of 27 May 2008, Dr Mahlo had consumed alcohol.[191]

In her findings, the Coroner did not comment upon the impression that family members, her general practitioner or her psychiatrist had formed that Dr Mahlo was not depressed two days before her death. The Coroner made no reference to the evidence of Dr Mahlo's two adult children who spoke with her by phone on the night before she was found dead.

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[185] *Inquest Findings*, n 30, 10 [1].

[186] *Inquest Findings*, n 30, 7 [9].

[187] The finding of scarring of the medial aspect of the left ankle was not inconsistent with Dr Mahlo being left-handed. Self-harming can be seen on either side of the lower limbs.

[188] *Inquest Findings*, n 30, 14 [1].

[189] *Inquest Findings*, n 30, 14 [1].

[190] *Inquest Findings*, n 30, 14 [2].

[191] *Inquest Findings*, n 30, 14 [4].

The Coroner concluded that Dr Mahlo had stabbed herself at a time when she was "severely distressed", suffering major depression and when her judgment was affected by alcohol.[192] The Coroner recorded the cause of death as self-inflicted stab wound to the central chest and that Dr Mahlo intended to cause her own death. The findings of the Coroner were widely reported in the media as controversial.[193]

Discussion

Suicide by Sharp or Cutting-edge Wounds

Sharp-force injuries are those caused by any object or implement with a cutting edge or point including knives, scissors and broken glass. Sharp-bladed implements can cause a range of injuries including incised, stab or slash wounds. While an incised injury describes a clean-edged wound that divides tissue, a slashing injury is caused by an edged weapon being drawn across the surface of the skin. Depending on the blade geometry, a stabbing injury results in a wound which is usually deeper that its width.[194]

Features of the stabbing implement, including tip radius, sharpness, number of cutting edges and length of blade, the force applied, the angle of attack and the relative movement between the assailant and the victim and the anatomical site of the injury, will determine the morphological characteristics (length, depth, direction, vitality) of the wound.[195] Since no characteristics of blade wounds are definitive for homicide or suicide, the distinction between self-inflicted wounds and wounds inflicted by another person can be difficult in situations where there is little available history or context[196] or when only a cursory or perfunctory death scene investigation has been performed.

The Force Required to Cause a Stab Injury

Pathologists sometimes purport to be able to offer an opinion as to the "degree of force" required to cause a given injury found at autopsy and adopt qualitative terms such as "mild", "moderate" or "severe" force[197] or "mild", "moderate", "considerable" or "severe" force.[198]

Since the degree of stab-penetration force required to inflict an injury will also be a function of the type and nature of any overlying clothing[199] and the underlying anatomical features[200] as well as the features

[192] *Inquest Findings*, n 30, 14 [4].

[193] Though a coroner ruled Dr Karen Lee Mahlo stabbed herself through her own breast bone, her family has doubts: Kathleen Donaghey, "Though a Coroner Ruled Dr Karen Lee Mahlo Stabbed Herself through Her Own Breast Bone, Her Family Has Doubts", *Courier Mail*, 27 June 2014 <https://www.couriermail.com.au/news/queensland/though-a-coroner-ruled-dr-karen-lee-mahlo-stabbed-herself-through-her-own-breast-bone-her-family-has-doubts/news-story/50e2271f223d6f1d5d08d599ac71f7e0>; The strange case of Dr Karen Mahlo: Rory Callinan, "The Strange Case of Dr Karen Mahlo", *Sydney Morning Herald*, 6 August 2015 <https://www.smh.com.au/lifestyle/the-strange-case-of-dr-karen-mahlo-20150728-gilz2t.html>; Suicide doctor Karen Mahlo's family call for judicial probe into new evidence: Rory Callinan, "Suicide Doctor Karen Mahlo's Family Call for Judicial Probe into New Evidence", *Sydney Morning Herald*, 21 August 2015 <https://www.smh.com.au/national/suicide-doctor-karen-mahlos-family-call-for-judicial-probe-into-new-evidence-20150821-gj4neq.html>.

[194] SV Hainsworth et al. "How Sharp Is Sharp? Towards Quantification of the Sharpness and Penetration Ability of Kitchen Knives Used in Stabbings" (2008) 122(4) I*nternational Journal of Legal Medicine* 281.

[195] SA Bolliger et al, "The Cutting Edge – An Investigation into the Pressure Necessary for Cutting Skin with Different Knife Blade Types" (2020) 134(3) *International Journal of Legal Medicine* 1133.

[196] A Krywanczyk and S Shapiro, "A Retrospective Study of Blade Wound Characteristics in Suicide and Homicide" (2015) 36(4) *American Journal of Forensic Medicine and Pathology* 305.

[197] B Knight, "The Dynamics of Stab Wounds" (1975) 6 *Forensic Science* 249; L Siegenthaler et al, "Impact Energy of Everyday Items Used for Assault" (2018) 132 *International Journal of Legal Medicine* 211.

[198] MD Gilchrist et al, "Measuring Knife Stab Penetration into Skin Simulant Using a Novel Biaxial Tension Device" (2008) 177 *Forensic Science International* 52; EJ Sharkey, "Investigation of the Force Associated with the Formation of Lacerations and Skull Fractures" (2012) 126 *International Journal of Legal Medicine* 835.

[199] SM Hejazi et al, "Analytical Assessment of Woven Fabrics under Vertical Stabbing – The Role of Protective Clothing" (2006) 259 *Forensic Science International* 224; FLM De-Giorgio et al, "Suicidal or Homicidal Sharp Force Injuries? A Review and Critical Analysis of the Heterogeneity in the Forensic Literature" (2015) 60 *Journal of Forensic Sciences* S97; AH Stephen et al, "Self-inflicted Penetrating Injury: A Review" (2018) 20(2) *Trauma* 81; L Nichols-Drew et al, "On a Knife Edge: A Preliminary Investigation of Clothing Damage using Rounded-tip Knives" (2020) 60(6) *Science and Justice* 495; K Sloan et al, "Textile

of the sharp object, estimates of the magnitude of force required using these relative and imprecise descriptors are arbitrary and have very limited evidence-base.[201]

While it might appear intuitively that the intention to inflict grievous bodily harm by a sharp or edged weapon would require the application of at least a substantial amount of force, one study showed that when volunteers were asked to use "mild", "moderate" or "severe" force, the resultant amounts of stabbing force were too similar to reliably infer the "intent" of the volunteer subject.[202]

Defence Wounds in Stabbings

Injuries inflicted by an assailant tend to be randomly distributed, reflecting the chaos of a violent assault[203] and are usually found on the upper aspect of the body.[204]

Defence wounds are sustained when a victim attempts to defend against an assailant. Defence wounds indicate that the victim was conscious for at least part of the time of the attack. Typical defence injuries are equally distributed on the posterior and anterior surfaces of the body and show no left or right predominance.[205] Defence wounds, including incised or slash wounds to the palm and inter-digital spaces or flexor aspect of the fingers, are sustained when a blade is seized[206] and injuries to the palm of the hand or volar aspect of the forearm may be sustained when the victim raised their arm against a knife.[207] A victim who is intoxicated or who is attacked suddenly from behind or while asleep may show little or no defence wounds at autopsy.

Damage Science – Is It a Reliable Science?" (2022) 4(6) *Wiley Interdisciplinary Reviews: Forensic Science* e1468 <https://wires.onlinelibrary.wiley.com/doi/epdf/10.1002/wfs2.1468>.

[200] L Gitto, "Determination of Force Required to Produce Stab Wounds in Cadaveric Chest Tissues" (2021) 42(3) *American Journal of Forensic Medicine and Pathology* 318.

[201] AN Annaidh et al, "Toward a Predictive Assessment of Stab-penetration Forces" (2015) 36(3) *American Journal of Forensic Medicine and Pathology* 162; HH de Boer et al, "Providing a Forensic Expert Opinion on the 'Degree of Force': Evidentiary Considerations" (2021) 12(12) *Biology* 1336; Bolliger et al, n 194; K Sloan et al, "Can a Machine Be Used to Replicate the Biomechanics of Human Stabbing Performance?" (2022) 62(2) *Science and Justice* 164.

[202] G Nolan et al, "Forces Generated in Stabbing Attacks: An Evaluation of the Utility of the Mild, Moderate and Severe Scale" (2018) 132 *International Journal of Legal Medicine* 132; see also IDC Kitulwatte and PAS Edirisinghe, "Relationship of Sharp Force Injuries to Motivation" (2015) 83(3) *Medico-Legal Journal* 159; K Sloan et al, "An Evaluation of Human Stabbing Performance to Inform the Standardisation of Textile Damage Examinations: Do Simulation Trials Correlate to Reported Stabbings?" (2020) 312 *Forensic Science International* 110305.

[203] S O'Donovan et al, "'Defense' Type Wounds in Suicide" (2018) 14(3) *Forensic Science, Medicine and Pathology* 402; M Belghith et al, "Homicidal Sharp Force Cases: An 11-year Autopsy-based Study" (2022) 88 *Journal of Forensic and Legal Medicine* 102347 <https://doi.org/10.1016/j.jflm.2022.102347>; PM Mohite et al, "Autopsy Evaluation of Defence Wounds in Homicidal Death in Central India" (2013) 4(5) *Journal of Forensic Research (OMICS)* e205; MGN Lakmali et al, "Pattern and Distribution of Defence Injuries: A Multi-center Study on Clinical and Autopsy Findings" (2016) 4(1) *Medico-legal Journal of Sri Lanka* 1; BS Hugar et al, "Study of Defence Injuries in Homicidal Deaths – An Autopsy Study" (2012) 19(4) *Journal of Forensic and Legal Medicine* 207: BB Panda et al, "Significance of Defence Wound in Homicidal Death" (2014) 36(3) *Journal of Indian Academy of Forensic Medicine* 263; S Subramanyam and J Janardhanan, "Analysis of Defence Injuries in Homicide Cases Categorised in Accordance to Homicide Injury Scale" (2021) 15(2) *Indian Journal of Forensic Medicine and Toxicology* 1010.

[204] U Schmidt and S Pollak, "Sharp Force Injuries in Clinical Forensic Medicine – Findings in Victims and Perpetrators" (2006) 159(2) *Forensic Science International* 113; RW Byard et al, "The Symmetry of Self Mutilation and the Chess Board Pattern" (2013) 9 *Forensic Science Medicine and Pathology* 106; M Vassalini et al, "Sharp Force Injury Fatalities: A Retrospective Study (1982–2012) in Brescia (Italy)" (2014) 59(6) *Journal of Forensic Sciences* 1568.

[205] T Karlsson, "Multivariate Analysis ('Forensiometrics') – A New Tool in Forensic Medicine. Differentiation between Sharp Force Homicide and Suicide" (1998) 94 *Forensic Science International* 183.

[206] GM Mazzolo and L Desinan, "Sharp Force Fatalities: Suicide, Homicide or Accident? A Series of 21 Cases" (2005) 147 *Forensic Science International* S33; U Schmidt, "Sharp Force Injuries in 'Clinical' Forensic Medicine" (2010) 195 *Forensic Science International* 1; CC Brunel et al, "Homicidal and Suicidal Sharp Force Fatalities: Autopsy Parameters in Relation to the Manner of Death" (2010) 198 *Forensic Science International* 150; C SujithSreenivas, "Comparative Study of Pattern and Nature of Sharp Force Injury with Reference to the Weapon – A Retrospective Autopsy Based Study" (2018) 18(1) *Medico-Legal Update* 162.

[207] S Racette et al, "Suicidal and Homicidal Sharp Force Injury: A 5-year Retrospective Comparative Study of Hesitation Marks and Defense Wounds" (2008) 4(4) *Forensic Science, Medicine and Pathology* 221.

Hesitation/Tentative Wounds in Self-harming by Sharp-force Injuries

So-called "hesitation" or "tentative wounds" indicate that the suicidal decedent may have been initially ambivalent or had wanted to inflict pain before the lethal wound or made more than one attempt usually at cutting at a particular site. Hesitation wounds are often shallow and near or parallel to deeper wounds[208] and usually appear on the non-dominant forearm arm or wrist or on either side of the thigh or lower leg. Hesitation wounds occur over a range in suicides from sharp or cutting-edge wounds.

Superficial injuries to the flexor aspect of the fingers are sometimes seen in suicides as a result of the person's grip of a knife, especially when there is no protective guard (quillion) between the handle and the blade of the knife. These injuries to the flexor aspect of the fingers may sometimes imitate defensive-type injuries.[209]

Differences in Features in Murder and Suicide by Sharp or Cutting-edge Wounds

While there will always be atypical or complex cases,[210] a number of factors have been identified to assist in differentiating between murder and suicide by sharp-force injury.[211] (see Table 1). The classical features associated with suicide are injuries located in sites accessible to the decedent, the presence of tentative injuries, typically in a transverse orientation and at a similar angle, and the absence of damage to clothing.[212] As to the localisation of stab wounds to the thorax, typical criteria for suicidal injury were a position near the heart, a transverse position of the wound in the intercostal space and an absence of injuries to the ribs.

A retrospective study of 53 homicides and 17 suicides by stabbing found that a female victim, numerous wounds and damage to clothing were suggestive of homicide.[213] Another study of single stab injuries

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[208] MV Karakasi, "Hesitation Wounds and Sharp Force Injuries in Forensic Pathology and Psychiatry: Multidisciplinary Review of the Literature and Study of Two Cases" (2016) 61 *Journal of Forensic Science* 15; ES Jang and S Lee, "Significance of Knife Tip Injuries as Hesitation Marks" (2019) 43(1) *Korean Journal of Legal Medicine* 7.

[209] K Ormstad et al, "Patterns in Sharp Force Fatalities – A Comprehensive Forensic Medical Study" (1986) 31(2) *Journal of Forensic Science* 529.

[210] B Madea et al, "Mechanical Trauma and Classification of Wounds" (2014) *Handbook of Forensic Medicine* 253; VP Singh et al, "A Critical Analysis of Stab Wound on the Chest" (2004) 26(2) *Journal of the Indian Academy of Forensic Medicine* 77; R Rautji et al, "An Unusual Suicide by Stabbing: A Case Report" (2003) 43 *Medicine, Science and Law* 179; T Laisaar, "Unusual Case of Self-inflicted Thoracic Knife Wounds with Five Knives Embedded in the Left Thoracic Cavity" (2005) 28(4) *European Journal of Cardio-thoracic Surgery* 653; S Srisont et al, "An Autopsy Case Report of Suicide by Multiple Self-cutting and Self-stabbing over the Chest and Neck" (2009) 92(96) *Medical Journal of the Medical Association of Thailand* 861; G Viel et al, "An Unusual Case of Suicide by Sharp Force" (2009) 184(1) *Forensic Science International* e12; S Demirci et al, "A Series of Complex Suicide" (2009) 30 *American Journal of Forensic Medicine and Pathology* 152; F Ventura et al, "A Fatal Case of Suicidal Stabbing and Cutting" (2010) 17(3) *Journal of Forensic and Legal Medicine* 120; A Pentone et al, "Dying Transfixing His Own Heart: A Rare Case of Suicide by Stabbing" (2013) 34(2) *American Journal of Forensic Medicine and Pathology* 318; L Massaro, "Unusual Suicide in Italy: Criminological and Medico-legal Observations – A Proposed Definition of 'Atypical Suicide' Suitable for International Application" (2015) 60 *Journal of Forensic Sciences* 790; PA Peyron et al, "Complex Suicide by Self-stabbing and Drowning: A Case Report and a Review of Literature" (2017) 63(2) *Forensic Sciences* 598; P Giugliano et al, "A Case of Suicide by a Large Number of Sharp Force Injuries" (2018) 18(1) *Medico-Legal Update* 10; J Gharehdaghi et al, "Fatal Abdominal Stabbing: A Confusing Picture in Differentiating Homicide and Suicide" (2019) 9(3) *International Journal of Medical Toxicology and Forensic Medicine* 155; P Vanezis, *Pathology of Sharp Force Trauma* (CRC Press, 2021); A Hristov et al, "A Case of a Stab-incised Injury to the Chest and Heart – Accident or Homicide – Forensic Medicine Conclusions and Solution of the Case" (2021) 5(2) *Science and Research* 43; GM El-Sarnagawy et al, "Characteristics and Outcomes of Homicidal and Accidental Stab Wounds in Emergency Hospitals: A Medicolegal Comparative Study" (2022) 58 *Legal Medicine* 102075.

[211] T Karlsson et al, "Homicidal and Suicidal Sharp Force Fatalities in Stockholm, Sweden: Orientation of Entrance Wounds in Stabs gives Information in the Classification" (1998) 93(1) *Forensic Science International* 21; A Dettling et al, "Criteria for Homicide and Suicide on Victims of Extended Suicide Due to Sharp Force Injury" (2003) 134(2) *Forensic Science International* 142; EF Kranioti et al, "Suicidal Self-stabbing: A Report of 12 Cases from Crete, Greece" (2017) 57(3) *Medicine, Science and the Law* 124.

[212] RD Start et al, "Suicide by Self-stabbing" (1992) 56(1) *Forensic Sciences International* 89; AE Austin et al, "Multiple Injuries in Suicide Simulating Homicide: Report of Three Cases" (2013) 20(6) *Journal of Forensic and Legal Medicine* 601.

[213] V Scolan et al, "Homicide-suicide by Stabbing Study over 10 Years in the Toulouse Region" (2004) 25(1) *American Journal of Forensic Medicine and Pathology* 33.

classified as murders found that of the 33 cases in which clothing was available for examination, in cases involving the chest or abdomen, a defect in clothing was identified in 93% of cases.[214] A noticeable feature of the cases classified as suicide was the presence of the knife in situ in the chest in nine of the decedents.

A later detailed study of 51 cases of sharp-force fatalities considered personal histories, victimology, death scene investigations, autopsy and toxicology findings and analysed possible predictors of murder by logistic regression.[215] Six parameters (blood stains distant from the body, clothing lacerations, hesitation/defence wounds, number of injuries and potential motivation explaining the assault) were found to differentiate between murder and suicide. The absence of clothing laceration was found to be inversely related to murder by sharp-force injury.[216]

In a large study of the sharp wound characteristics in a cohort of 57 homicides and 20 suicides, homicides presented more prominently with oblique stab wounds through clothing to the thorax and neck with additional traumatic injuries to the lungs, bone or cartilage.[217] In contrast, suicides presented more commonly with cut wounds to the neck and upper limbs, anatomical regions not usually covered by clothing.[218]

Death from a Single Stab Wound to the Trunk

A retrospective analysis of autopsies over a 25-year period identified 56 cases (12 suicides and 33 homicides), with singular stab wounds to the anterior or lateral trunk.[219] Of the 12 suicides, only one person was a woman and in nine cases the stab wound was localised at the left-sided thorax in the cardiac region. In only three cases the stab wound injured a rib. In six cases, no further fresh skin injuries were present and hesitation wounds were detected in only two cases. Self-inflicted stab wounds of the trunk projected mainly to the cardiac region around the inner quadrants of the left breast. In contrast, in the 33 cases of singular stab wounds inflicted by others, there was only a discreet clustering around the cardiac region with the majority of injuries loosely distributed over the front or the lateral regions with a focus to the left side of the trunk. Due to the exposed location as well as the underlying vital organs, the anterior and lateral trunk represented not only an easily accessible localisation for suicidal acts, but also for homicides. However, the authors concluded that a singular lethal stab wound was a rare finding in the context of homicide.[220]

A study of the Swedish forensic autopsy register identified 94 homicides and 45 suicides between 2010 and 2021 in which death followed a single stab injury to the trunk.[221] In the cases of homicide,

[214] MP Burke et al, "Single Stab Injuries" (2018) 14(3) *Forensic Science, Medicine and Pathology* 295.

[215] C Terranova et al, "Criminological and Medico-legal Aspects in Homicidal and Suicidal Sharp Force Fatalities" (2020) 65(4) *Journal of Forensic Sciences* 1184.

[216] See also T Kondo and T Oshima, "Retrospective Investigation of Medico-legal Autopsy Cases Involving Mentally Handicapped Individuals" (1995) 49 *Japanese Journal of Legal Medicine* 478; T Ohshima and T Kondo, "Eight Cases of Suicide by Self-cutting or -Stabbing: Consideration from Medico-legal Viewpoints of Differentiation between Suicide and Homicide" (1997) 4(3) *Journal of Clinical Forensic Medicine* 127; S Fukube et al, "Retrospective Study on Suicidal Cases by Sharp Force Injuries" (2008) 15(3) *Journal of Forensic and Legal Medicine* 163; B Karger et al, "Suicides by Sharp Force: Typical and Atypical Features" (2000) 113(5) *International Journal of Legal Medicine* 259.

[217] NL Manso et al, "Sharp Force Fatalities: Differentiating Homicide from Suicide through a Retrospective Review (2012–2019) of Autopsy Findings in Lisbon (Portugal)" (2021) 327 *Forensic Science International* 110959: see also L Assunção et al, "Suicide by Sharp Force Injuries – A Study in Oporto" (2009) 11 *Legal Medicine* S216; J Prahlow, "Sharp Force Injury Deaths" (2010) *Forensic Pathology for Police, Death Investigators, Attorneys, and Forensic Scientists* 379; AH Thomsen et al, "Sharp Force Homicide in Denmark 1992–2016" (2020) 65(3) *Journal of Forensic Sciences* 833; G Quatrehomme and V Alunni, "The Link between Traumatic Injury in Soft and Hard Tissue" (2019) 301 *Forensic Science International* 118.

[218] See also C Stassi, "Unusual Attempted Suicide or Covered Attempted Homicide? A Neck Stabbing Case Report and Review of Literature" (2021) 135(2) *International Journal of Legal Medicine* 555.

[219] J Schädler et al, "Singular Stab Wounds to the Trunk: Is This Suicidal or Homicidal?" (2024) 69 *Legal Medicine* 102430.

[220] De-Giorgio et al, n 198; Karlsson et al, n 210.

[221] MB von Linde et al, "A Swedish Nationwide Forensic Study of the Manner of Death in Single Stab Injuries to the Trunk" (2024) 354 *Forensic Science International* 111910.

injury to the sternum, ribs or scapula was found in 67% of the murders and 40% of the suicides while injury through the intercostal space was found in only 16% of the murders and 40% of the suicides. A horizontal direction of the entrance wound was found in 24% of the cases of homicide and 44% in the cases of suicide. Although absent in all the cases of homicide, hesitation injuries were only identified in 40% of the cases of suicide. Surprisingly, defensive injuries were present in only a small proportion (10%) of homicide cases.

The Significance of a "Suicide Note"

Early studies have shown that previous suicide attempts and the finding of a "suicide note" were important indications of suicide intent.[222] A study of the findings of 130 coronial inquests in Queensland between 2004 and 2018 considered the presence of "suicide cues" or risk factors including mental illness, previous suicide attempts, suicidal ideations and the finding of a "suicide note".[223] The study found that the likelihood of a Coroner making a suicide finding increased as the number of suicide cues increased.

TABLE 1. Features of Murder versus Suicide by Sharp or Cutting-edge Wounds

Features	Murder	Suicide
Site of the death scene	anywhere including outside, a public place (exception: domestic violence murder)	staged or chosen site, commonly indoors in the decedent's home
Signs of disturbance at the death scene	common	very uncommon
Weapon *in situ*	uncommon	common in chest and abdomen self-stabbing
Weapon near body of decedent	uncommon (unless "staged" to simulate suicide)	virtually always
Decedent laid out neatly	uncommon, unless the decadent was restrained or bound before death	common
Bloodstains distant from the body or cast off blood pattern	common	very uncommon
Clothing pulled aside from wound site	very uncommon	common
Stabbing through clothing	very common	very uncommon
Single or very few deep wounds	any number of wounds	commonly only a single or very few wounds of similar morphology
Irregular sited wounds	common	uncommon

[222] MJ Atkinson, *Discovering Suicide: Studies in the Social Organisation of Sudden Death* (McMillan, 1978); see also AA Leenaars, *Suicide Notes: Predictive Clues and Patterns*, (Human Sciences, 1988); R Hanzluck and J Goodin, "Mind Your Manners Part III: Individual Scenario Results and Discussion on the National Association of Medical Examiners Manner of Death Questionnaire" (1997) 18 *American Journal of Forensic Medicine and Pathology* 228; S Timmersmans, "Suicidal Determination and the Professional Authority of Medical Examiners" (2005) 70(2) *American Sociological Review* 311.

[223] B Carpenter et al. "Coronial Determination of Suicide: Insights from Inquests" (2023) 29(1) *Mortality* 108; see also G Tait et al. "Problems with the Coronial Determination of 'Suicide'" (2015) 20(3) *Mortality* 233; G Tait et al, "Coronial Decision-making and the Management, Classification and Conceptualisation of the Finding of 'Suicide'" (2020) 25(3) *Mortality* 297; G Jenkin et al, "Investigating Suspected Suicides: New Zealand Coroners' Experiences" (2022) 46(2) *Death Studies* 314; S Jowett et al, "Determining a Suicide under Australian Law: A Comparative Study of Coronial Practice" (2019) 42(2) *University of New South Wales Law Journal* 534.

TABLE 1. continued

Location of wound, accessible to reach (right-handed decedent)	random sites wound most commonly to left side of chest (in right-handed assailant)	usually left-sided wound cutting wound: commonly to flexor aspect of left wrist, ventral forearm or antecubital fossa stabbing wound: anterior chest, abdomen, neck (usually not over regions with underlying bone)
Wounds to sensitive areas (genitalia, eyes, ears, lips, nipples)	common	very uncommon
Orientation of wound	usually vertical often multi-directional or irregular	usually uni-directional, parallel usually horizontal or oblique
Defence wounds, typically on extensor surface of hands, forearm or back	common, often dispersed	never
Tentative or "hesitation" wounds	uncommon, unless victim was tortured	common, usually in a cluster, close to lethal wound
Additional fresh self-harm injuries	very uncommon	common
Old, healed or healing self-harm injury	uncommon	common (in right-handed decedent), most frequently flexor surface of left wrist, ventral aspect of left forearm anterior thighs (either side)
Additional recent traumatic injury including abrasions, bruises, fractures	common, particularly if a struggle occurred	very uncommon
Suicide note, farewell message	very uncommon (as distinct from a "dying" declaration)	common
Post-mortem toxicology	presence of alcohol, stimulant or "recreational drugs"	presence of alcohol, prescribed anti-depressant or sedating medication (therapeutic or non-therapeutic levels)
Decedent's past history	not significant or only relevant to victimology: particularly past victim of domestic violence, association or relationship with the assailant	intentional self-injury, past suicide attempts major mood or psychotic disorder borderline personality disorder chronic debilitating illness terminal malignancy major life stressor (including relationship breakdown)

The Importance of the Death Scene Investigation

In cases of suspicious or unexpected deaths, including during inpatient care or in police or correctional custody, a coronial inquest may be required to determine the time, place, manner and cause of death.[224] A meticulous death scene investigation[225] including multiple photographs, fingerprinting and DNA testing

[224] *Coroner's Act 2003* (Qld) s 45.

[225] S Ahn et al, "A Comparison of Self-inflicted Stab Wounds versus Assault-induced Stab Wounds" (2016) 21(5) *Trauma Monthly* e25304; G Pelletti et al, "Alteration of the Death Scene after Self-stabbing: A Case of Sharp Force Suicide Disguised by the Victim

of all items and nearby surfaces and statements from all relevant persons and a detailed examination of the body and a considered classification of the injury type[226] are fundamental to a correct forensic interpretation of a death by a sharp or cutting-edge wound.[227]

In cases of suspected suicide, obtaining collateral information from witnesses and relatives and the decedent's treating doctor or psychiatrist may be critical to the investigation.[228] However, victimology or any psychological autopsy which includes the decedent's past history of mental illness particularly intentional self-injury or suicide attempts, and the accounts provided by family or friends lack validity and reliability in differentiating suicide from murder.[229]

As was emphasised in one of the earliest exhortations by a senior police investigator, it is imperative to recognise that like crime itself, a crime scene is a dynamic event,[230] the initial stage of the investigation of a death scene is both a scientific and social process and that crucial evidence is not simply "found", rather it evolves as a social construct often involving a number of actors of different skills and expertise.[231]

The processes adopted by a senior investigating officer (an "effective detective") comprise of active problem-solving involving analysis, evaluation and integration of the diffuse mass of often ambiguous information accumulated in the course of a criminal investigation.[232] Over a twenty-five-year career as a

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as a Homicide?" (2017) 62(5) *Journal of Forensic Sciences* 1395; G Cecchetto et al, "Back to the Future-Part 1. The Medico-legal Autopsy from Ancient Civilization to the Post-genomic Era" (2017) 131(4) *International Journal of Legal Medicine* 1069; KE van den Hondel et al, "Scene of Death Investigation in Apparent Suicidal Deaths in Rotterdam, the Netherlands" (2023) 63(2) *Medicine, Science and the Law* 132 <https://doi.org/10.1177/00258024221112557>.

[226] DG Jones, *Speaking for the Dead: Cadavers in Biology and Medicine* (Routledge, 2000).

[227] JJ Payne-James and J Hinchliffe, "Injury Assessment, Documentation and Interpretation" in MM Stark (ed), *Clinical Forensic Medicine: A Physician's Guide* (Humana Press, 3rd ed, 2011); van den Hondel et al, n 224.

[228] PV Phoenix and US Indiana, "Multiple Stab Wounds: Understanding the Manner of Death through the Psychological Autopsy" (2017) 168(4) *Clinical Therapeutics* e233; A Gerard et al, "Survivors of Self-inflicted Stab Wounds" (2012) 20(1) *Australasian Psychiatry* 44; S O'Brien et al, "Self-inflicted Stab Wounds: A Single-center Experience from 2010 to 2016" (2019) 85(6) *The American Surgeon* 272; S Jowett et al, "Determining a Suicide under Australian Law" (2018) 41(92) *University of New South Wales Law Journal* 355; Tait et al, "Coronial Decision-making and the Management, Classification and Conceptualisation of the Finding of 'Suicide'", n 222; JH Broadbear et al, "Coroners' Investigations of Suicide in Australia: The Hidden Toll of Borderline Personality Disorder" (2020) 129 *Journal of Psychiatric Research* 241; R Scott et al, "Using the Stress–vulnerability Model to Better Understand Suicide in Prison Populations" (2023) 30(3) *Psychiatry, Psychology and Law* <https://doi.org/10.1080/13218719.2021.2013340>.

[229] L Pouliot and D De Leo, "Critical Issues in Psychological Autopsy Studies" (2006) 36 *Suicide and Life-Threatening Behavior* 491; JT Cavanagh et al, "Psychological Autopsy Studies of Suicide: A Systematic Review" (2003) 33 *Psychological Medicine* 395; H Hjelmeland, "Psychological Autopsy Studies as Diagnostic Tools: Are they Methodologically Flawed?" (2012) 36(7) *Death Studies* 605.

[230] D Garrison "Crime Scene Investigation as a Patrol Function" (2003) 51(11) *Law and Order* 70; see also J Horswell, "Management of Crime Scene Investigation" in J Horswell (ed), *The Education and Training of Crime Scene Investigators: An Australian Perspective* (CRC Press, 2004); S Stanley and J Horswell, "The Education and Training of Crime Scene Investigators: An Australian Perspective" in J Horswell (ed), *The Education and Training of Crime Scene Investigators: An Australian Perspective* (CRC Press, 2004); F Crispino, "Nature and Place of Crime Scene Management within Forensic Sciences" (2008) 48(1) *Science & Justice* 24.

[231] R Adderley and JW Bond, "The Effects of Deprivation on the Time Spent Examining Crime Scenes and the Recovery of DNA and Fingerprints" (2008) 53(1) *Journal of Forensic Sciences* 178; O Ribaux et al, "Intelligence-led Crime Scene Processing. Part II: Intelligence and Crime Scene Examination" (2010) 199(1) *Forensic Science international* 63; S Kelty et al, "Professionalism in Crime Scene Examination: The Seven Key Attributes of Top Crime Scene Examiners" (2011) 2(4) *Forensic Science Policy & Management: An International Journal* 175; RD Julian et al, "What Is the Value of Forensic Science? An Overview of the Effectiveness of Forensic Science in the Australian Criminal Justice System Project" (2011) 43(4) *Australian Journal of Forensic Science* 217; P Stelfox, "Criminal Investigation: Filling the Skills Gap in Leadership, Management, and Supervision" (2011) 5(1) *Policing* 15; R Julian et al, "'Get It Right the First Time': Critical Issues at the Crime Scene" (2012) 24(1) *Current Issues in Criminal Justice* 25; J Robertson, "Forensic Science, an Enabler or Dis-enabler for Criminal Investigation?" (2012) 44(1) *Australian Journal of Forensic Sciences* 83; C Roux et al, "Shifting Forensic Science Focus from Means to Purpose: A Path Forward for the Discipline?" (2021) 61(6) *Science & Justice* 678; RR Ristenbatt et al, "Traceology, Criminalistics, and Forensic Science" (2022) 67(1) *Journal of Forensic Sciences* 28.

[232] N Smith and C Flanagan, *The Effective Detective: Identifying the Skills of An Effective SIO* (Home Office, HMSO, 2000); see also SJ Mullins et al, "Towards a Taxonomy of Police Decision Making in Murder Inquiries" in L Alison et al (eds), *Policing*

homicide detective including re-investigating "cold cases", Ron Iddles' mantra became "ABC … assume nothing, believe nothing and check everything".[233]

Whether the Death Scene Has Been Altered or Staged

Police officers investigating a death must be alert to the possibility that the death scene has been altered or staged[234] and this is particularly important in cases which appear initially to be suicide or accidental deaths.[235]

In a study of 115 staged homicide cases, including 16 cases involving homicides staged to appear as suicides, most victims were discovered in their own homes (75%), most frequently in their bedroom (44%).[236] In 50% of the cases, the victims were "discovered" by the person subsequently charged with the murder.[237] It is well recognised that more than a third of women who are murdered die at the hands of their current or former intimate partner.[238]

The burgeoning evidence of miscarriages of justice as a consequence of flawed investigations[239] has highlighted the potential for compromised investigations particularly in what has been termed "case denial" in which the investigators formed an early view that no crime had been committed leading to "premature closure" before all reasonable lines of inquiry had been pursued.

A core principle in policing is "case construction" and "cross construction", the use of hypotheses in the context of the investigation of a suspected crime.[240] Hypotheses are defined as "a suggested explanation for a group of facts either accepted as a basis for further verification or accepted as likely to be true". A set of hypotheses should be identified and the inquiry should seek to disprove each hypothesis such that the one hypothesis which remains is probably the correct hypothesis.

Critical Incidents Leadership and Critical Incident Management (Willan, 2008); P Stelfox and K Pease, "Cognition and Detection: Reluctant Bedfellows?" in M Smith and N Tilley (eds), *Crime Science* (Willan, 2013); M Wright, "Homicide Detectives' Intuition" (2013) 10(2) *Journal of Investigative Psychology and Offender Profiling* 182; I Fahsing and K Ask, "The Making of an Expert Detective: The Role of Experience in English and Norwegian Police Officers' Investigative Decision Making" (2016) 22(3) *Psychology, Crime and Law* 203.

[233] J Ford, *The Good Cop: The True Story of Ron Iddles, Australia's Greatest Detective* (Pan Macmillan, 2018).

[234] C Ferguson, "Staged Homicides: An Examination of Common Features of Faked Burglaries, Suicides, Accidents and Car Accidents" (2015) 30(3) *Journal of Police and Criminal Psychology* 139; C Ferguson, "Collision or Collusion? Homicides Staged as Car Accidents" (2016) 24(2) JLM 493.

[235] M Doyle, "Non-suspicious Deaths (or Is It?): The Duties and Responsibilities of the Police" (2011) 7(1) *Journal of Homicide and Major Incident Investigation* 45. Ahn et al, n 224; Pelletti et al, n 224; Cecchetto et al, n 224; van den Hondel et al, n 224; M De Matteis et al, "Homicide and Concealment of the Corpse. Autopsy Case Series and Review of the Literature" (2021) 135 *International Journal of Legal Medicine* 193; M Kaliszan, "Multiple Severe Stab Wounds to Chest with Cuts to the Ribs. Suicide or Homicide?" (2011) 18(1) *Journal of Forensic and Legal Medicine* 26.

[236] C Ferguson and W Petherick, "Getting Away with Murder: An Examination of Detected Homicides Staged as Suicides" (2016) 20(1) *Homicide Studies* 3; see also C Ferguson and K Pooley, "Comparing Solved and Unsolved No Body Homicides in Australia: An Exploratory Analysis" (2019) 23(4) *Homicide Studies* 381.

[237] See also B Turvey, "Staged Crime Scenes: A Preliminary Study of 25 Cases" (2000) 1(3) *Journal of Behavioral Profiling* 1; LB Schlesinger et al, "Crime Scene Staging in Homicide" (2014) 29 *Journal of Police and Criminal Psychology* 44; C Ferguson, "Staged Crime Scenes: Literature and Types" in W Petherick (ed), *Serial Crime: Theoretical and Practical Issues in Behavioural Profiling* (Andersen Publishing, 3rd ed, 2014).

[238] United Nations Office on Drugs and Crime, *Global Study on Homicide 2019 Homicide Trends, Patterns and Criminal Justice Response* (Vienna, 2019); see also A Matias et al, "Intimate Partner Homicide: A Meta-analysis of Risk Factors" (2020) 50 *Aggression and Violent Behavior* 101358.

[239] D Jones, "Miscarriages of Justice: The Role of Homicide Review" (2011) 51(92) *Medicine, Science and the Law* 63. C McCartney et al, "Homicide Investigation and Miscarriages of Justice" in C Allsop and S Pike (eds), *The Routledge International Handbook of Homicide Investigation* (Routledge, 2023).

[240] M Innes et al, "'Mosaicking': Cross Construction, Sense-making and Methods of Police Investigation" (2021) 44(4) *Policing: An International Journal* 708; F Brookman et al, "Dead Reckoning: Unravelling How 'Homicide' Cases Travel from Crime Scene to Court using Qualitative Research Methods" (2020) 24(3) *Homicide Studies* 283.

However, on the subject of hypothecation, under onerous work and time pressures, police may defer to the principle propounded by William of Occam ("Occam's razor"[241] or the "Principle of Parsimony"[242]) who posited that theory construction should always err towards the simple hypothesis as this was more likely to be the correct hypothesis. Occam also warned about making hypotheses too elaborate and "hypothesizing about a hypothesis".

Errors in Reasoning and Cognitive Biases in Integrating Evidence from Death Scene Investigations

In clinical medicine, there is considerable research into errors in clinical reasoning and cognitive biases.[243] A cognitive bias is a distortion, usually subconscious, that results from how a clinician processes and synthesises information in arriving at a conclusion or making a diagnosis. Bias and errors in reasoning can also occur during a death scene investigation,[244] an autopsy examination and proceedings in a coronial inquest.[245]

Framing bias occurs when an investigation develops based on how the incident was first reported or how information or evidence was first presented rather than a more comprehensive and critical analysis of all the information.[246]

Selective perception, expectation and confirmation bias ("tunnel vision") refer to the tendency to filter or selectively search for and interpret information that confirms pre-conceptions or an early hypothesis.[247] As well as focusing on evidence confirming the original theory, the investigator may ignore or refuse to look for contradicting evidence. Existing evidence may be interpreted in a biased way and evidence that supports the investigative theory is taken at face value or without close examination, while contradicting evidence is scrutinised with scepticism or doubt. An "off track" investigation particularly where there is close media attention is another form of confirmation bias in which police build a case which is likely to ignore or reject evidence that challenges the case construction.[248]

Verification bias (case construction or asymmetrical scepticism) is a form of confirmation bias in which a narrative is developed based on "perception" rather than or prior to considering and analysing all the evidence.[249] In premature closure, the investigator adopts a narrow or hurried focus and makes an inference or comes to a conclusion when there remains uncertainty and a need to maintain an open

[241] M Walker, "Occam's Razor, Dogmatism, Skepticism, and Skeptical Dogmatism" (2016) 6(1) *International Journal for the Study of Skepticism* 1.

[242] RE Worden and SG Brandl, "Protocol Analysis of Police Decision-making: Toward a Theory of Police Behavior" (1990) 14 *American Journal of Criminal Justice* 297; UW Weger, "Avoiding 'False Alarms' and 'Misses' in Psychological Theory Building: Complementing the Principle of Parsimony with the Principle of Tentative Affirmation" (2020) 123(3) *Psychological Reports* 983.

[243] I Scott, "Errors in Clinical Reasoning: Causes and Remedial Strategies" (2009) 338 *British Medical Journal* 22; IA Scott and C Crock, "Diagnostic Error: Incidence, Impacts, Causes and Preventive Strategies" (2022) 213(7) *Medical Journal of Australia* 302.

[244] S Nakhaeizadeh et al, "Cascading Bias of Initial Exposure to Information at the Crime Scene to the Subsequent Evaluation of Skeletal Remains" (2018) 63(2) *Journal of Forensic Sciences* 403; RM Morgan et al, "Interpretation of Forensic Science Evidence at Every Step of the Forensic Science Process: Decision-making under Uncertainty" in R Wortley et al (eds), *Routledge Handbook of Crime Science* (Routledge, 2018); N Georgiou et al, "The Shifting Narrative of Uncertainty: A Case for the Coherent and Consistent Consideration of Uncertainty in Forensic Science" (2023) 55(6) *Australian Journal of Forensic Sciences* <https://doi.org/10.1080/00450618.2022.2104370>; BA Spellman et al, "Challenges to Reasoning in Forensic Science Decisions" (2022) 4 *Forensic Science International: Synergy* 100200.

[245] D Kahneman et al, *Noise: A Flaw in Human Judgement* (William Collins, 2021); MA Neuilly, "Sources of Bias in Death Determination: A Research Note Articulating the Need to include Systemic Sources of Biases along with Cognitive Ones as Impacting Mortality Data" (2022) 67(5) *Journal of Forensic Sciences* 2032.

[246] A Beratšová et al, "Framing and Bias: A Literature Review of Recent Findings" (2016) 3(2) *Central European Journal of Management* <https://doi.org/10.5817/CEJM2016-2-2>.

[247] DK Rossmo, "Case Rethinking: A Protocol for Reviewing Criminal Investigations" (2016) 17(3) *Police Practice and Research* 212.

[248] ML Henneberg and BW Loveday, "Off Track Police Investigations, Case Construction and Flawed Forensic Practices: An Analysis of Three Fatal Stabbings in Sweden, California and England" (2015) 4 *British Journal of American Legal Studies* 499.

[249] DK Rossmo and DK Rossmo, *Criminal Investigative Failures* (Taylor & Francis, 2009); Henneberg and Loveday, n 247; CAJ van den Eeden et al, "Forensic Expectations: Investigating a Crime Scene with Prior Information" (2016) 56 *Science and Justice* 475.

mind to other possibilities.[250] In hypothesis bias ("closed mindedness" or diagnosis momentum) once a formulation or theory develops, the formulation or theory tends to become increasingly entrenched and what might have begun as a possibility or provisional finding gathers momentum until it becomes definitive and other possibilities are no longer considered.[251]

Framing, confirmation and verification biases and the tendency to overlook or dismiss information which refutes or challenges the pre-conception or favoured "working hypothesis" in hypothesis bias are likely to be the most common bias which compromises collection and integration of evidence from the death scene,[252] conclusions a pathologist makes from the findings at autopsy[253] and the later deliberations of a coroner.[254]

There are other less common and more nuanced forms of biases. Anchoring (primacy effect) bias refers to the overreliance on only a few pieces of information and the tendency to fixate or focus on prominent or forceful features too early in the decision-making process.[255] In anchoring bias, there is a failure to adjust the initial impression in light of subsequent information and the tendency for the investigator not to review or re-evaluate their earlier assessment.[256]

Availability heuristic (recency bias) refers to the tendency to recall other salient or recent examples which resemble the present case such that the likelihood of the present case being another such example is falsely inflated.[257] The tendency to overestimate the probability of a hypothesis is based on how easily it is recalled, which is often skewed by recent and memorable, or emotionally-laden cases.

Ascertainment bias refers to when the investigator's ability to obtain or ascertain all relevant information is constrained by prior expectation.[258] Stereotyping bias is a further example of ascertainment bias.

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[250] K Ask et al, "Elasticity in Evaluations of Criminal Evidence: Exploring the Role of Cognitive Dissonance" (2011) 16(2) *Legal and Criminological Psychology* 289; I Fahsing et al, "Have You Considered the Opposite? A Debiasing Strategy for Judgment in Criminal Investigation" (2023) 96(1) *The Police Journal* 45.

[251] C Wastell et al, "Identifying Hypothesis Confirmation Behaviors in a Simulated Murder Investigation: Implications for Practice" (2012) 9(2) *Journal of Investigative Psychology and Offender Profiling* 184.

[252] B O'Brien, "Prime Suspect: An Examination of Factors That Aggravate and Counteract Confirmation Bias in Criminal Investigations" (2009) 15(4) *Psychology, Public Policy, and Law* 315; Jones, n 238; R Salet and J Terpstra, "Critical Review in Criminal Investigation: Evaluation of a Measure to Prevent Tunnel Vision" (2014) 8(1) *Policing: A Journal of Policy and Practice* 43; H Jones et al, "We Need to Talk about Dialogue: Accomplishing Collaborative Sensemaking in Homicide Investigations" (2021) 94(4) *The Police Journal* 572; see also B Chapman et al, "A Review and Recommendations for the Integration of Forensic Expertise within Police Cold Case Reviews" (2020) 10(2) *Journal of Criminal Psychology* 79; DK Rossmo, "Dissecting a Criminal Investigation" (2021) 36(4) *Journal of Police and Criminal Psychology* 639; Fahsing et al, n 249.

[253] I Dror et al, "Cognitive Bias in Forensic Pathology Decisions" (2021) 66(5) *Journal of Forensic Sciences* 1751; AP Winburn and C Clemmons, "Objectivity Is a Myth That Harms the Practice and Diversity of Forensic Science" (2021) 3 *Forensic Science International: Synergy* <https://doi.org/10.1016/j.fsisyn.2021.100196>; RJ Delaney and D Jones, "The Medicolegal Autopsy: When to Refer to a Forensic Pathologist" (2021) 27(10) *Diagnostic Histopathology* 397.

[254] SM Schmittat and B Englich, "If You Judge, Investigate! Responsibility Reduces Confirmatory Information Processing in Legal Experts" (2016) 22(4) *Psychology, Public Policy, and Law* 386; E Maegherman et al, "Law and Order Effects: On Cognitive Dissonance and Belief Perseverance" (2016) 29(1) *Psychiatry, Psychology and Law* 33; J Kukucka et al, "Cognitive Bias and Blindness: A Global Survey of Forensic Science Examiners" (2017) 6(4) *Journal of Applied Research in Memory and Cognition* 452; MA Almazrouei et al, "The Forensic Disclosure Model: What Should Be Disclosed to, and by, Forensic Experts?" (2019) 59 *International Journal of Law, Crime and Justice* 100330; LJ Curley et al, "Assessing Cognitive Bias in Forensic Decisions: A Review and Outlook" (2020) 63(2) *Journal of Forensic Sciences* 354; N Georgiou et al, "Conceptualising, Evaluating and Communicating Uncertainty in Forensic Science: Identifying Commonly Used Tools through an Interdisciplinary Configurative Review" (2020) 60(4) *Science & Justice* 313; Brookman et al, n 239.

[255] KA Findley and MS Scott, "The Multiple Dimensions of Tunnel Vision in Criminal Cases" (2006) 2(291) *Wisconsin Law Review* 312; JH Kerstholt and AR Eikelboom, "Effects of Prior Interpretation on Situation Assessment in Crime Analysis" (2007) 20(5) *Journal of Behavioural Decision Making* 455.

[256] H Ditrich, "Cognitive Fallacies and Criminal Investigations" (2015) 55(2) *Science & Justice* 155.

[257] GS Cooper and V Meterko, "Cognitive Bias Research in Forensic Science: A Systematic Review" (2019) 297 *Forensic Science International* 35; V Meterko and G Cooper, "Cognitive Biases in Criminal Case Evaluation: A Review of the Research" (2022) 37 *Journal of Police and Criminal Psychology* 101.

[258] KA Martire et al, "Forensic Science Evidence: Naive Estimates of False Positive Error Rates and Reliability" (2019) 302 *Forensic Science International* 109877.

Context (cognitive contamination) bias refers to when irrelevant background information distracts or overloads the reasoning process causing the investigator to make a hasty and flawed conclusion.[259] Search satisficing (cognitive closure) refers to the tendency to stop gathering information to distinguish between alternative hypotheses once the investigator is satisfied, often on the basis of cognitive fatigue or overload, that sufficient information has been obtained to arrive at a conclusion.[260] Search satisficing can occur when an investigation is rushed or compromised because of the other pressures including heavy caseloads or the demands of the investigator's superiors.[261]

There is a further risk that as a result of the various biases and defects in reasoning, evidence which is overlooked or not collected and analysed at the first opportunity at the death scene investigation may be lost forever.

A theoretical model which adopts a cognitive coherence approach[262] has been proposed in which available evidence produces an emerging conclusion which in turn modifies and focuses subsequent evidence evaluation.[263] This approach may provide a superior "bigger picture" framework which emphasises not just the interplay of evidence collection and analysis but also highlights the bi-directionality of effects whereby the evaluation of one item of evidence not only affects the emerging conclusion but the emerging conclusion feeds back and influences the collection and evaluation of other evidence.[264]

Death Scene Investigation in Cases Labelled "Suicide"

The investigation of a death scene requires a dynamic approach and critical thinking and an ability to adapt to complex scenarios with an open-minded and problem-solving approach.[265] Death scene investigation requires an ethnographic approach which is broadly understood as a method which integrates first-hand empirical investigation and the theoretical and comparative interpretation of social organisation and culture.[266] This investigative approach recognises the expertise, interactions, roles and skills of the

[259] E Rassin et al, "Let's Find the Evidence: An Analogue Study of Confirmation Bias in Criminal Investigations" (2010) 7(3) *Journal of Investigative Psychology and Offender Profiling* 231; IE Dror, "Practical Solutions to Cognitive and Human Factor Challenges in Forensic Science" (2013) 4(3) *Forensic Science Policy and Management: An International Journal* 105; IE Dror et al, "The Impact of Human–technology Cooperation and Distributed Cognition in Forensic Science: Biasing effects of AFIS Contextual Information on Human Experts" (2012) 57(2) *Journal of Forensic Sciences* 343; E Rassin, "Context Effect and Confirmation Bias in Criminal Fact Finding" (2020) 25(2) *Legal and Criminological Psychology* 80; NR Morling and ML Henneberg, "Contextual Information and Cognitive Bias in the Forensic Investigation of Fatal Fires: Do These Incidents Present an Increased Risk of Flawed Decision-making?" (2020) 62 *International Journal of Law, Crime and Justice* 100406. AM Smith and TM Neal, "The Distinction between Discriminability and Reliability in Forensic Science" (2021) 61(4) *Science & Justice* 319; See also G Tait and B Carpenter, "The Continuing Implications of the 'Crime' of Suicide: A Brief History of the Present" (2016) 12(2) *International Journal of Law in Context* 210.

[260] M Vredenborg et al, "Exploratory Study of a System to Reduce Information Overload and Tunnel Vision in Homicide Investigations" (2022) 28(8) *Journal of Universal Computer Science* 827.

[261] See also C Weyermann and C Roux, "A Different Perspective on the Forensic Science Crisis" (2021) 323 *Forensic Science International* 110779.

[262] SM Kassin et al, "The Forensic Confirmation Bias: Problems, Perspectives, and Proposed Solutions" (2013) 2(1) *Journal of Applied Research in Memory and Cognition* 42.

[263] D Simon et al, "The Emergence of Coherence over the Course of Decision Making" (2001) 27(5) *Journal of Experimental Psychology: Learning, Memory, and Cognition* 1250.

[264] SD Charman, "The Forensic Confirmation Bias: A Problem of Evidence Integration, Not Just Evidence Evaluation" (2013) 2 *Journal of Applied Research in Memory and Cognition* 56; GS Morrison, "Advancing a Paradigm Shift in Evaluation of Forensic Evidence: The Rise of Forensic Data Science" (2022) 5 *Forensic Science International: Synergy* 100270.

[265] M Chowdhury, "Beyond Bagging and Tagging – An Empirical Investigation into the Roles, Designations and Responsibilities of Crime Scene Practitioners" (2021) 61(3) *Science and Justice* 271; see also M Chowdhury, "A Broken System? Examining the Perilous State of Quality Assurance in Crime Scene Practice" (2021) 61(5) *Science and Justice* 564.

[266] D Wyatt and D Wilson-Kovacs, "Understanding Crime Scene Examination through an Ethnographic Lens" (2019) 1(6) *Wiley Interdisciplinary Reviews: Forensic Science* e1357.

investigators as more than simply "forensic hoovers" and that their work involves tacit and experiential skills that go beyond basic textbook and classroom training.[267]

Homicides are relatively rare in Australia. In 2020–2021 there were 210 homicides of which 18 were unsolved.[268] Detection avoidance behaviours include pre-planning, removing evidence, manipulating bodies and staging the scene to confound the investigation of the death.[269] Depending on their relationship with the victim and how much time and opportunity they have, offenders with forensic awareness may hide, destroy or manipulate evidence to avoid detection.[270]

However, the ambiguity of some scenarios, the complexity and dynamics of the death scene and the range of information and evidence initially collected may be confounding and cause a version of the circumstances surrounding the death and an early "working hypothesis" to be developed which prematurely labels the death as "suicide".

Australian research has identified a number key risk factors in the use of forensic science from the crime scene to court including a low level of forensic awareness among first responders, crime scene examiners deployed as technicians rather than as professionals, inefficient and/or ineffective laboratory processes and limited forensic literacy among key actors in the criminal justice system and poor communication between key actors in the criminal justice system.[271] Overall, the findings suggest that forensic science may not be well embedded in the criminal justice system in Australia.[272]

An interpretative method of death scene investigation has been proposed based on the search for key features which are statistically strong in distinguishing suicide from other causes of death.[273] Those features include the frequency of the method adopted in suicide, the decedent's history of mental illness, circumstantial data (which might include the presence of a sharp-edged implement, a suicide note or farewell message) and compatibility of the means and injuries with the suicidal dynamics.

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[267] J Schröer et al, "The Significance of Medico-legal Findings for Behavioural Analysis in Unsolved Homicide Cases" (2003) 5 *Legal Medicine* S243; J Schröer and K Püschel, "Special Aspects of Crime Scene Interpretation and Behavioral Analysis" (2007) 4 *Forensic Pathology Reviews* 193.

[268] S Bricknell, *Homicide in Australia 2020-21* (Australian Institute of Criminology, 2023).

[269] J Mouzos and D Muller, *Solvability Factors of Homicide in Australia: An Exploratory Analysis* (Australian Institute of Criminology, 2001); C Ferguson and A McKinley, "Detection Avoidance and Mis/unclassified, Unsolved Homicides in Australia" (2020) 10(2) *Journal of Criminal Psychology* 113; A McKinley and C Ferguson, "The Role of Detection Avoidance Behaviour in Solving Australian Homicides" (2021) 9(2) *Salus Journal* 57; C Ferguson, *Detection Avoidance in Homicide: Debates, Explanations and Responses* (Routledge, 2021); F McLachlan and C Ferguson, "Rates and Features of Detection Avoidance in Intimate Partner Femicide in Australia" (2024) *Homicide Studies* <https://journals.sagepub.com/doi/10.1177/10887679241233980>.

[270] C Ferguson, "Forensically Aware Offenders and Homicide Investigations: Challenges, Opportunities and Impacts" (2019) 51(Supp 1) *Australian Journal of Forensic Sciences* S128 <https://doi.org/10.1080/00450618.2019.1569129>; Ferguson, "Staged Homicides", n 233; Ferguson and Petherick, n 235; Ferguson, "Collision or Collusion? Homicides Staged as Car Accidents", n 233.

[271] R Julian and SF Kelty, "Forensic Science as 'Risky Business': Identifying Key Risk Factors in the Forensic Process from Crime Scene to Court" (2015) 1(4) *Journal of Criminological Research, Policy and Practice* 195.

[272] See also K Strom and M Hickman, "Unanalysed Evidence in Law Enforcement Agencies" (2010) 9(2) *Criminology and Public Policy* 381; D Wyatt, "Practising Crime Scene Investigation: Trace and Contamination in Routine Work" (2015) 24(4) *Policing and Society: An International Journal of Research and Policy* 443; V Mousseau et al, "Management of Crime Scene Units by Quebec Police Senior Managers : Insight on Forensic Knowledge and Understanding of Key Stakeholders" (2019) 59(5) *Science and Justice* 524; M Illes et al, "Forensic Epistemology: A Need for Research and Pedagogy" (2020) 2 *Forensic Science International: Synergy* 51.

[273] JL Parai et al, "The Validity of the Certification of Manner of Death by Ontario Coroners" (2006) 16 *Annals of Epidemiology* 805; D Gray et al, "Comparative Analysis of Suicide, Accidental, and Undetermined Cause of Death Classification" (2014) 44 *Suicide and Life-Threatening Behavior* 304; D. Cusack et al, "European Council of Legal Medicine (ECLM) Principles for On-site Forensic and Medico-legal Scene and Corpse Investigation" (2017) 131 *International Journal of Legal Medicine* 1119; S Visentin et al, "Suicide Identification during On-site Inspection. Proposal and Application of an Interpretative Method for Death Scene Investigation" (2019) 297 *Forensic Science International* 148; Carpenter et al, n 222.

The Over-emphasis on "the Cause of Death" in Coronial Inquests – Lessons from the Case of Dr Harold Shipman

The Inquiry which investigated Dr Harold Shipman, a previously well-regarded English general practitioner who was suspected of killing up to 400 mostly elderly patients over a period at least 27 years by injecting morphine or diamorphine,[274] concluded that too many coronial autopsies were carried out by reason of "automatic triggers" and as such, the autopsies frequently added little or nothing to an understanding of the deceased or the circumstances and cause of death.[275] The Inquiry found that even without hindsight bias, it was evident that inadequate inquiries or deficient investigations failed to collect and analyse evidence which indicated that many of the deaths should have at least been considered as suspicious deaths.[276]

In one case, Shipman murdered a man who 17 days earlier had undergone a hernia repair. When Shipman telephoned the coroner's office to certify the death, an autopsy was considered necessary, and a police officer attended the death scene and completed a "sudden death" form and a brief report. The pathologist who completed the autopsy reported that the cause of death was bronchopneumonia due to tracheal compression from a nodular thyroid goitre even though histology did not confirm the diagnosis. The coroner decided that an inquest was unnecessary and certified the cause of death based on the autopsy report. A thorough investigation would have revealed that the man had been observed by his friend and neighbour to appear quite well only two hours before his death and his goitre had been present and unchanged for many years.

Two consultants who treated another of Shipman's victims were subsequently found guilty of serious professional misconduct by the General Medical Council for failing to report their concerns.[277] Their 47-year-old patient remained comatose in the hospital until her death 14 months after her last consultation with Shipman. Although hospital records showed that she had received an injection of 20 mgs of morphine, an extraordinarily large dose for a patient with asthma, neither of the two consultants made inquiries into what had happened or notified the relevant authorities. Following an autopsy, with no investigation or explanation as to how the patient came to be in a persistent vegetative state, a pathologist reported hypoxic cerebral degeneration and ascribed the death to "natural causes". Subsequent autopsies performed on 12 exhumed bodies found traces of morphine and diamorphine in patients whose deaths Shipman had certified as "natural deaths".[278]

An earlier report into Shipman's murder of his patients recommended a review of death certification, preservation of case records and procedures for monitoring use of controlled drugs.[279] However, it transpired that the first suspicions about Shipman arose from his own clumsy attempt to forge a patient's

[274] See also C Dyer, "Public Inquiry Hears how Shipman Killed Patients with Diamorphine" (2001) 322 (7302) *British Medical Journal* 1566; IR Freckelton, "Medical Murder: Disturbing Cases of Doctors Who Kill" (2009) 17(3) JLM 462; CA Davis, *Doctors Who Kill: Profiles of Lethal Medics* (Allison & Busby, 2011); CK Lubaszka et al, "Healthcare Serial Killers as Confidence Men" (2014) 11(1) *Journal of Investigative Psychology and Offender Profiling* 1.

[275] J Smith, *The Shipman Inquiry. Third Report – Death Certification and the Investigation of Deaths by Coroners*, CM 5854 (2003); see also J Smith, "The Shipman Inquiry: Death Certification" (2004) 44(4) *Science, Medicine and Law* 280.

[276] DJ Smith, *The Shipman Inquiry* (The Stationery Office, 2004) Vol 6249; D Smith, "Not by Error, But by Design – Harold Shipman and the Regulatory Crisis for Health Care" (2002) 17(4) *Public Policy and Administration* 55.

[277] O Dyer, "Consultants who Misled Shipman Inquiry are Found Guilty of Misconduct" (2005) 331(7524) *British Medical Journal* 1042.

[278] J Nelson et al, "Killing of Elderly Patients by Health Care Professionals: Insights from Coroners' Inquests and Inquiries in Three Cases" (2021) 28(3) JLM 620.

[279] R Baker, *Harold Shipman's Clinical Practice 1974-1998. A Clinical Audit Commissioned by the Chief Medical Officer* (Department of Health, 2001): R Baker, "The Relationship between the Findings of the Review of Shipman's Clinical Practice and the Inquiry's Terminations' in J Smith (ed), *The Shipman Inquiry: First Report*, (The Shipman Inquiry, 2003); N Crowcroft and A Majeed, "Improving the Certification of Death and the Usefulness of Routine Mortality Statistics" (2001) 1(2) *Clinical Medicine* 22; C Dyer, "Shipman Inquiry Recommends Tighter Rules on Controlled Drugs" (2004) 329(7459) *British Medical Journal* 188; B Guthrie et al, "Routine Mortality Monitoring for Detecting Mass Murder in UK General Practice: Test of Effectiveness Using Modelling" (2008) 58(550) *British Journal of General Practice* 311.

will in which he made himself the beneficiary of her estate.[280] The forged will had been typed on a typewriter in Shipman's possession. Shipman had also altered the computer records of the victim after their deaths and a subsequent forensic examination of the computer showed the dates and times that Shipman made the alterations.[281] It was actually the family of the one of the decedents who became concerned and alerted police.[282]

CONCLUSIONS

There is a common perception that the "scientific" medical evidence generated from the findings at autopsy is superior to the circumstantial and physical evidence gathered from the police investigation at the death scene.[283] An overreliance on the pathologist's report rather than the scene of death report and thorough police inquiry may result in an over-emphasis on "scientific theory" (or speculation) rather than the investigation.[284] An over-emphasis by coroners on simply determining the cause of death can occur at the expense of elaborating upon the more complex circumstances and manner of death.

The Queensland Coronial Guidelines emphasise that "the investigation must extend beyond the simple medical cause of the death and seek to establish the circumstances that contributed to the death occurring".[285] However, a methodical, disciplined and ethnographically informed approach to analysing, interpreting and integrating all the items of evidence (and not only those from the death scene) appeared to be lacking in the case of Dr Mahlo.

The Stabbing Death of Dr Karen Mahlo – Suicide or Murder?

The most common method of suicide by both medical practitioners and women generally is by a deliberate overdose. In April 2008, Dr Mahlo nearly completed suicide by a deliberate overdose. As a medical practitioner with more than a basic knowledge of human anatomy, Dr Mahlo would know that a horizontal stab wound between the ribs overlying the heart would be the most efficacious method of suicide by self-stabbing.

It appears more than incongruous that Dr Mahlo would choose to stab herself deeply with a large knife which had no protective hilt through the clothing she was wearing into the midline of her chest overlying the sternum.

It has been postulated that if Dr Mahlo had gripped the chef's knife in the right hand with the thumb closest to the chest (with a half-pronated wrist), then the lesions to her right thumb could have been

[280] R Horton, "The Real Lessons from Harold Frederick Shipman" (2001) 357(9250) *The Lancet* 82; DJ Pounder, "The Case of Dr. Shipman" (2003) 24(3) *American Journal of Forensic Medicine and Pathology* 219; R Baker, "The Shipman Case: The Individual" in J Harrison et al (eds) *Rebuilding Trust in Healthcare* (Radcliffe Medical Press, 2003); V Tanna, "Moving on from Shipman" (2005) 331(7513) *British Medical Journal* 411; R Baker, "Making Haste Slowly: The Response to the Shipman Inquiry?" (2008) 58(550) *British Journal of General Practice* 307; J Gunn, "Dr Harold Frederick Shipman: An Enigma" (2010) 20(3) *Criminal Behaviour and Mental Health* 190.

[281] A Samuels, "Editorial: Doctor Harold Shipman" (2000) 68(2) *Medico-Legal Journal* 37.

[282] G Houghton, "'Last Seen Before Death': The Unrecognised Clue in the Shipman Case" (2004) 12(1) *Quality in Primary Care* 5; I Jones, "'It's All About Justice': Bodies, Balancing Competing Interests, and Suspicious Deaths" (2018) 45(4) *Journal of Law and Society* 563.

[283] B Carpenter and G Tait, "The Autopsy Imperative: Medicine, Law, and the Coronial Investigation" (2010) 31(3) *Journal of Medical Humanities* 205; B Carpenter et al, "Scrutinising the Other: Incapacity, Suspicion and Manipulation in a Death Investigation" (2015) 36(2) *Journal of Intercultural Studies* 113; T McEwen and W Regoeczi, "Forensic Evidence in Homicide Investigations and Prosecutions" (2015) 60(5) *Journal of Forensic Sciences* 1188.

[284] S Timmermans, "Suicide Determination and the Professional Authority of Medical Examiners" (2005) 70(2) *American Sociological Review* 311; S Timmermans, *Post Mortem; How Medical Examiners Explain Suspicious Deaths* (University of Chicago, 2006); B Carpenter et al, "Increasing the Information Available to Coroners: The Effects on Autopsy Decision Making" (2009) 49(2) *Medicine, Science, and the Law* 101; G Tait and B Carpenter, "Suicide and the Therapeutic Coroner: Inquests, Governance and the Grieving Family" (2013) 2(3) *International Journal for Crime, Justice and Social Democracy* 92; Tait et al, "Problems with the Coronial Determination of 'Suicide'", n 222; R Bray et al, "Exploring Fatal Facts: Current Issues in Coronial Law, Policy and Practice" (2016) 12(2) *International Journal of Law in Context* 115.

[285] M Barnes, *Queensland State Coroner's Guidelines* (Queensland Government, 2003).

caused by her thumb slipping onto the blade of the knife. However, this method of grasping the knife would appear to be an awkward and less effective method for Dr Mahlo to stab herself and would be unlikely to achieve enough force to transect the sternum. Most importantly, Dr Mahlo was left-handed which suggests that any injuries to her right hand were more likely to have been incurred as defensive wounds.

There were a number of other incidental injuries which were not explained in the original autopsy report. The small circular abrasion on the chin, the submucosal bleeding on the lips and the bruising to the back of the left hand and right thigh are all be consistent with injuries incurred in a struggle or from Dr Mahlo being restrained by an assailant.

The absence of multiple or more extensive "defence" wounds might suggest that Dr Mahlo made only limited attempts to defend herself, possibly as a consequence of her level of intoxication, or when an assailant held her from behind with an arm around her neck and stabbed her in the central chest.

Although the Coroner asked independent pathologist Dr Iles whether the findings at autopsy were consistent with a self-inflicted death, the Coroner did not also ask the alternative question whether the findings at autopsy were consistent with murder.

After their relationship broke down, Mr Hehir knew that Dr Mahlo had begun preparing a new will. During the subsequent hearing into the contested will, the Court noted that Dr Mahlo's father had testified to having seen Dr Mahlo's "new will." Although the "new will" could not be produced, the memory function of Dr Mahlo's printer would likely have had a record of the printing of the "new will".

During the Inquest, although Mr Hehir's testified that he had not removed Dr Mahlo's printer from storage, the printer could not be located and, as a consequence, the printer has never been forensically examined.

During the death scene investigation, it is clear that the "working hypothesis" of suicide was established very soon after Mr Hehir told police that Dr Mahlo had a history of depression and alcohol dependence and had made previous suicide attempts including a recent serious attempt by deliberate overdose.

The death scene investigators would have been subject to anchoring bias as soon as the familiar features of suicide were identified – the body lying on a bed with no evidence of a disturbance or forced entry and the discovery of the putative "suicide notes".

The manifest shortcomings of the police death scene investigation and the conflicting accounts given by Mr Hehir both during the contested will hearing and the subsequent Inquest raise serious questions about whether the finding of suicide was reasonably supported by the evidence and whether, in the interests of justice, another inquest into the death of Dr Karen Mahlo should be held.