# RECENT PUBLICATIONS BY HOME TEAM STAFF

BOOKS

#### Introduction to Cyber Forensic Psychology: Understanding the Mind of the Cyber Deviant Perpetrators Edited by Majeed Khader, Whistine Chai and Loo Seng Neo World Scientific, February 2021, 404 pages

The first of its kind in Singapore, *Introduction to Cyber Forensic Psychology*, explores emerging cybercrimes and cyber enabled crimes. Utilising a forensic psychology perspective to examine the mind of the cyber deviant perpetrator as well as strategies for assessment, prevention, and interventions, it seeks to tap on the valuable experiences and knowledge of leading forensic psychologists and behavioural scientists in Singapore. Some of the interesting trends discussed in this book include stalkerware usage, livestreaming of crimes, online expressions of hate and rebellion, attacks via smart devices, COVID-19 related scams and cyber vigilantism. Such insights enhance our awareness about the growing pervasiveness of cyber threats and showcase how behavioural sciences is a force-multiplier in complementing existing technological solutions.



Majeed Khader and Whistine Chai are with the Home Team Behavioural Sciences Centre (HTBSC). Neo Loo Seng was formerly with HTBSC.

#### Prepared for Evolving Threats: The Role of Behavioural Sciences in Law Enforcement and Public Safety

Selected Essays from the Asian Conference of Criminal and Operations Psychology 2019

Edited by Majeed Khader, Gabriel Ong and Carolyn Misir World Scientific, September 2020, 280 pages

This book is a collection of essays from local, regional, and international experts in the fields of law enforcement, safety, and security who participated in the Asian Conference of Criminal and Operations Psychology held in Singapore in 2019. In a world where threats and crises are increasingly transnational, there is value in the cross-cultural exchange of information and the integration of knowledge bases to understand the present-day landscape dynamics. More than ever, there is a greater urgency for behavioural sciences to inform and shape operational protocols and policies in the security sector.

Majeed Khader is the Chief Psychologist of the Ministry of Home Affairs. Gabriel Ong is with the Singapore Prison Service Psychological & Correctional Rehabilitation Division. Carolyn Misir is with the Singapore Police Psychological Services Division.



#### How to Prepare for the Next Pandemic: Behavioural Sciences Insights for Practitioners and Policymakers Edited by Majeed Khader, Denise Dillon, Xingyu Ken Chen, Loo Seng Neo and Jeffery Chin World Scientific, December 2020, 276 pages

In many countries, as the number of confirmed COVID-19 cases skyrocketed exponentially, a surge of 'bad' behaviours such as xenophobia attacks, propagation of misinformation, and panic-buying of essential items became commonplace. Panic and chaos have reigned as the world witnessed unprecedented moves by countries to close their borders and implement strict guarantine orders in a desperate attempt to mitigate the spread of the coronavirus. COVID-19 has impacted many different aspects of society, from politics to the psychological well-being of citizens, and the list will grow as the spread of the disease persists. While it is impossible to fathom the way COVID-19 will change our usual way of life, there are prevailing concerns that the community currently faces. What are the psychological impacts of a pandemic? How do we enhance the collective resilience of the community during a pandemic? How do we cope with mental health issues during a pandemic? How do we deal with bereavement during a pandemic? How can we support healthcare workers and emergency responders during a pandemic? These are just some of the many important concerns that influence the way we cope with the COVID-19 outbreak. There is therefore an urgent need to enhance our understanding and level of preparedness against Covid-19 and pandemics in general. To that end, How to Prepare for the Next Pandemic: Behavioural Sciences Insights for Practitioners and Policymakers aims to examine the impacts pandemic have on our society from a behavioural sciences perspective, and to identify solutions that practitioners and policymakers can adopt to combat the spread of COVID-19 in this new operating environment.

Majeed Khader and Xingyu Ken Chen are with the Home Team Behavioural Sciences Centre (HTBSC). Jeffery Chin, also of HTBSC, is currently on secondment to the Ministry of Social and Family Development.

# HOW TO PREPARE FOR THE NEXT PANDEMIC

Behavioural Sciences Insights for Practitioners and Policymakers

Edited by Majeed Khader | Denise Dillon | Xingyu Ken Chen Loo Seng Neo | Jeffery Chin



### **BOOK CHAPTERS**

Offender subtypes and theories of child sexual abuse— Illustrations using two Singapore case studies (Chapter 2) By Xiangbin Lin, Paul Zhihao Yong, Priyathanaa Kalyanasundram and Kend Tuck Ng

## Interventions for sex offenders who target child victims (Chapter 26)

By Shamala Gopalakrishnan, Yasmin Ahamed and Natasha Lim



#### The Rotherham child sexual exploitation: An analysis of organisational and criminological contributors (Chapter 31) By Whistine Chai, John Yu, Ang Mae Chen and Majeed Khader

In *Child Sexual Abuse: Forensic Issues in Evidence, Impact and Management* Edited by India Bryce Wayne Petherick Elsevier, April 2020

In Chapter 2, Lin, Yong, Kalyanasundram and Ng of the Singapore Prison Service investigate various factors that facilitate decisions to sexually offend against children with a focus on the motivations of child sexual abuse. The development of these motivations and their corresponding goals are discussed and case studies are used to illustrate these motivations, and how they lead to offending behaviour.

In Chapter 26, Gopalakrishnan, Ahamed and Lim of the Singapore Prison Service provide an overview of the intervention approaches and techniques used in the interventions for sex offenders who target child victims. While most publications have focused on the treatment of sexual offenders from an academic stance, they provide a 'practitioneroriented' angle based on their clinical experiences as psychologists working with sex offenders in the Singapore Prison system. Their chapter aims to put together a range of interventions that have been used in a prison setting with sex offenders who targeted child victims.

In Chapter 31, Chai, Yu, Chen and Khader of the Home Team Behavioural Sciences Centre examine the Rotherham Child Sexual Exploitation case, one of the worst incidences of organised sexual abuse in the UK, with estimates of more than 1400 child victims who were sexually exploited between the 1990s to 2013 in Rotherham. They provide an analysis of the causes and contributors to this prolonged and pervasive series of child sexual exploitation by examining open-source inquiry and investigative reports through various perspectives and theories of crime. Their findings reveal the presence of salient investigative and operational shortcomings of implicated agencies and organisations as well as plausible criminological factors across society that fuelled the spread and persistence of these crimes. Some recommendations to mitigate and manage child sexual exploitation are presented at the end of their chapter as learning lessons from the Rotherham incident.

Xiangbin Lin, Paul Zhihao Yong, Priyathanaa Kalyanasundram, Kend Tuck Ng, Shamala Gopalakrishnan, Yasmin Ahamed, Natasha Lim, Whistine Chai, Ang Mae Chen and Majeed Khader are psychologists with Home Team Departments. John Yu, formerly with HTBSC, is now furthering his education in clinical psychology.

## Unwanted Attention: A Survey on Cyberstalking Victimisation

By Majeed Khader and Stephanie Chan

In *Psycho-Criminological Approaches to Stalking Behaviour: An International Perspective* Edited by Heng Choon (Oliver) Chan and Lorraine Sheridan John Wiley & Sons Ltd, June 2020

Given the advent of technology and the pervasive use of social media, the Home Team Behavioural Sciences Centre embarked on a study to explore the nature and impact of cyberstalking victimisation among Singaporean emerging adults. Surveying a total of 497 university undergraduates and 317 polytechnic students, this study examined the prevalence of cyberstalking, victims' threat perception and subjective distress, and victims' coping strategies and their attitudes towards future help-seeking avenues. Prevalence rates for cyberstalking ranged from 27.7% to 55.5%. The subsequent findings of victim threat perception, distress, coping strategies, and help-seeking preferences are discussed with respect to implications for greater awareness and anti-cyberstalking measures.



Majeed Khader and Stephanie Chan are with the Home Team Behavioural Sciences Centre

#### Crime-Fake News Nexus

By Xingyu Chen, John Yu, Pamela Goh, Loo Seng Neo, Verity Er and Majeed Khader

In *Encyclopedia of Criminal Activities and the Deep Web, Volume 1* Edited by Mehdi Khosrow-Pour IGI Global, February 2020

Fake news has become intertwined with criminal offences of various magnitudes across the globe. Singapore, for example, has also seen a recent emergence of bitcoin investment scams that employ fake news to deceive their victims. Despite this emerging nexus between fake news and criminal conduct, there is a dearth of literature examining this convergence to date. Thus, an exploratory study on fake news cases that came into contact with the criminal justice system in Singapore from 2013 to 2018 was conducted by the Home Team Behavioural Sciences Centre. This study also aims to provide an exploratory outlook on the following: (a) the type of crime-fake news in Singapore, (b) the impact that crime-related fake news (or crime-fake news) has on the victims as well as society, (c) the profile of the fake news creators and their motivations, (d) the channels of transmission, as well as € the response to mitigate the crime-fake news.

# The Importance of the Human-Centric Approach in Combating Cyber Threats

By Pamela Goh, Loo Seng Neo and Xingyu Chen



#### Leveraging on Digital Footprints to Identify Potential Security Threats: Insights From the Behavioural Sciences Perspective By Loo Seng Neo

In *Encyclopedia of Criminal Activities and the Deep Web, Volume 3* Edited by Mehdi Khosrow-Pour IGI Global, February 2020

The world faces increasing prevalence of cyber threats and cyberattacks despite advancements in technological defences against them. Cyber perpetrators are constantly looking to exploit any vulnerabilities in the computer and network systems, where humans are unfortunately the weakest link. Although they are aware of the threats and know what should be done in order to protect themselves and their organisations, people are still not engaging enough in these cyber hygiene practices. The chapter by Goh, Neo and Chen, psychologists from the Home Team Behavioural Sciences Centre, attempts to understand human behaviours in cyberspace, providing insights into the reasons for cyber threats and what can be done to counter them.

The growing pervasiveness of the Internet has revolutionised how individuals communicate and interact with one another. Despite being an effective channel for communication, it has also been exploited by individuals with malicious intent - such as criminals, violent extremists – for the purposes of fundraising, recruitment, propaganda creation and dissemination, sharing of vital information, data mining, etc. With the ease of accessibility and cloak of anonymity, individuals with malicious intent have reorganised their operations online to exist and operate in social environments that may not agree with their activities. How then can individuals with malicious intent be identified in advance? How are they using the Internet and social media to further their nefarious deeds? These questions can be addressed by examining how open-source digital footprints (i.e., one's online behaviours on social media and Internet) should be harnessed to better identify and assess potential security threats. It is within these digital footprints where a potential perpetrator's intention and warning signs may manifest, which in turn can be utilised to assess the threat they pose. The chapter by Neo discusses how digital footprints can be leveraged to identify potential security threats, particularly for crime and security issues that could result in negative repercussion at the national level, such as acts of violent extremism and hate crimes.

Xingyu Chen, Pamela Goh and Majeed Khader are with the Home Team Behavioural Sciences Centre (HTBSC). Verity Er is with the Community Corrections Command of the Singapore Prison Service. John Yu and Neo Loo Seng were formerly with HTBSC.

#### Impact of COVID-19 'circuit-breaker' measures on emergency medical services utilisation and out-of-hospital cardiac arrest outcomes in Singapore

By Qin Xiang Ng, Ebenezer ZH Lee, Joey AM Tay and Shalini Arulanandam

Emergency Medicine Australasia 33(1), February 2021

To understand the impact of COVID-19 restrictions on emergency medical services (EMSs) utilisation and out-of-hospital cardiac arrest outcomes in Singapore, a retrospective observational study was conducted comparing data collected by the Singapore Civil Defence Force on EMS utilisation in Singapore from 1 April to 31 May, 2020 to previous figures. It found that overall, EMS call volume and total out-of-hospital cardiac arrests remained comparable to past years. There was an appreciable decline in prehospital return of spontaneous circulation rates, albeit not statistically lower than pre-COVID periods (P = 0.078). The findings of this article contribute to a growing body of literature internationally on the potential impact of the COVID-19 pandemic on EMS utilisation and outcomes.

*Qin Xiang Ng, Ebenezer Lee, Joey Tay and Shalini Arulanandam are with the Singapore Civil Defence Force.* 

### Epidemiological trends of personal mobility devices and powerassisted bicycles-related fires and injuries in Singapore

By Jason Qi Wei Kwek, Qin Xiang Ng, Amelia Justina Lim, Li Feng Ang and Shalini Arulanandam

Burns, online November 2020

To study the epidemiological trends of personal mobility devices (PMD) and power-assisted bicycles (PAB)-related fires and injuries in Singapore. a retrospective chart review was conducted of all emergency medical services (EMS)-attended PMD/PAB-related fire incidents from January 2017 to December 2019, using data collated by the Singapore Civil Defence Force. There were 178 incidents and 101 casualties over the 3-year period. In most cases, the casualties were young males, sustained smoke inhalation injuries and required conveyance to the hospital. The article found that PMDs and PABs have inherent fire risks and may carry a significant impact on public health and safety.

Jason Kwek, Qin Xiang Ng, Amelia Lim, Li Feng Ang and Shalini Arulanandam are with the Singapore Civil Defence Force.



# Examining the influence of emotional arousal and scam preventive messaging on susceptibility to scams

By Hui Ying Lu, Stephanie Chan, Whistine Chai, Shi Mian Lau and Majeed Khader

#### Crime Prevention and Community Safety 22 (4), December 2020

With the increase in scams globally and the elusive methods of perpetrators, law enforcement agencies have turned to public education and awareness programmes to decrease the number of scam victims. This has also raised a need to look into the psychology of scams and how they can be prevented. Emotional arousal has been shown to hinder cognitive decision-making processes in scam victims, subsequently influencing them to fall prey to scams. Despite this, messages used in scam prevention campaigns have been framed in ways that appeal to rational cognitive processes. This exploratory study examined two research questions: do (a) the type of messaging used in scam prevention posters (cognitivefocused poster vs. emotion-normalising poster) and (b) emotional arousal (positive arousal vs. negative arousal vs. no arousal) influence one's susceptibility to scams? Susceptibility to scams was measured through participants' intention to purchase items during a fake e-commerce scam scenario. Emotional arousal was measured with a combination of heart rate variability (HRV) data obtained through wearable heart rate trackers, and self-report scales. Results of the study showed that participants who viewed emotion-normalising posters demonstrated a lower susceptibility to scams compared to those who viewed the cognitive-focused poster. However, emotional arousal was not found to have any influence on one's susceptibility to scams. These findings serve to inform crime prevention campaigns by law enforcement. Findings from this exploratory study can also encourage further research into scam prevention research.

Hui Ying Lu, Stephanie Chan, Whistine Chai, Shi Mian Lau and Majeed Khader are with the Home Team Behavioural Sciences Centre.

## Enhancing Responders' Performance and Safety Through Smart Wearable Technologies

By Hasan Kuddoos

#### Asia Pacific Fire 75, October 2020

The article discusses how SCDF has embarked on a new frontier of using smart wearable technologies to optimise the performance and enhance the safety of emergency responders. SCDF has consistently invested in technologies that can enhance their responders' capabilities. In this smart digital era, the new technologies have allowed data-driven decisionmakings, and an evidence-based approach for training outcomes. The smart wearable technologies will also be extended to SCDF's frontline officers in the next phase for optimisation of performance and real-time monitoring for signs of over-exertion during operational response.

Hasan Kuddoos is with the Civil Defence Academy of the Singapore Civil Defence Force.





#### How Does "Context" Influence Risk and Needs Assessments in Correctional Settings – Ideas and Practices from Correctional Psychologists of Singapore Prison Service

By Boon Siang Kwek, Shamala D/O Gopalakrishnan, Xiangbin Lin and Rashida Mohamed

#### Advancing Corrections Journal 10, October 2020

This article illustrates and discusses the importance of contexts using four mini-case studies of risk and needs assessments. Through this article, the team hopes to encourage fellow correctional practitioners to consider, beyond the usual offender-centric risk and protective factors, the unique contextual factors relevant to each assessment.

#### An Exploratory Study on the Impact of a Strength-based and Desistance-informed Approach to Motivational Feedback on Risk/Needs

By Shermaine Chionh, Jeslyn S. Z. Ng and Cheng Xiang Long

#### Advancing Corrections Journal 10, October 2020

This study examined if integrating strength-based and desistance elements in an RNR-based risk feedback motivated offenders to change. Eighteen drug abusers in the Singapore Drug Rehabilitation Centre received motivational feedback on their LS/CMI-identified riskneeds and were guided to identify their strengths and values to set life goals. Deductive thematic analysis of their goal-planner showed that those who became motivated after feedback, compared to those not, displayed signals of motivation for change by recognising offending problems, expressing intentions to change, and planning goals and prosocial ways to achieve them. Findings provide a practical strengthbased and desistance approach to motivating offenders.

Boon Siang Kwek, Shamala D/O Gopalakrishnan, Xiangbin Lin, Rashida Mohamed, Shermaine Chionh, Jeslyn S. Z. Ng and Cheng Xiang Long are with the Singapore Prison Service.

### Desistance journey of female drug abusers in Singapore

By Fann Jiang and Cheng Xiang Long

ICPA Taskforce, October 2020 "Beyond Prisons: Women and Community Corrections"

This study examines the desistance journey of female drug abusers in Singapore, including gender-specific factors that contribute to or challenge their attempts to stop their drug abuse. Findings inform gender-specific reintegration needs of female drug abusers in Singapore.

Fann Jiang and Cheng Xiang Long are with the Singapore Prison Service.



Nervendenal Corrections Nervendenal Correctio



#### Redefining the Performance of Emergency Responders By Leon Yip

Crisis Response Journal 15(3), September 2020

This article describes how the Singapore Civil Defence Force has invested heavily in innovative science and technology. The aim is to provide holistic and effective measures to improve responder performance.

Mental Wellbeing in Emergency Response Services By Khoo Swee Giang, Cyrus Chng and Ng Song Lim

Crisis Response Journal 15(3), September 2020

Fire, rescue and civil defence personnel are exposed to dangerous work conditions and stressors, which can lead to sleep disturbances, fatigue and detrimental psychological effects. This article reviews the Singapore Civil Defence Force's successful peer support system to improve wellbeing.

#### Insarag Guidelines - Fit for Purpose

By Anwar Abdullah

Crisis Response Journal 15(3), September 2020

The International Search and Rescue Advisory Group (INSARAG) has reviewed its guidelines for dealing with the sudden onset of events involving large scale structural collapse. This article outlines the strategy of the Guidelines Review Group.

Leon Yip, Khoo Swee Giang, Cyrus Chng, Ng Song Lim and Anwar Abdullah are with the Singapore Civil Defence Force.



### Self-reported incidence of verbal and physical violence against emergency medical services (EMS) personnel in Singapore

By Guek Khim Tay, Abd Rahman Abdul Razak, Kenneth Foong, Qin Xiang Ng and Shalini Arulanandam

#### Australasian Emergency Care, September 2020

Western studies have highlighted alarmingly high rates of work-related violence experienced by emergency medical services (EMS) staff. As there is a paucity of Asian studies, we aimed to investigate the incidence of physical and verbal violence against the EMS crew in the Singapore Civil Defence Force (SCDF). This was a cross-sectional study, utilising an online survey made available to all active paramedics in the SCDF. Paramedics with at least one year of work experience were eligible to participate. All responses were kept anonymous. The response rate was 50.9% (n = 246), out of 483 paramedics in service at the time of the study. The respondents consisted of 144 males (58.5%) and 102 females (41.5%). They were between 18 and 55years old; 160 (65.0%) of them had worked in EMS for less than 6 years. The paramedics experienced high levels of verbal and physical violence, but there was reticence in reporting these incidents. The main risk factor for violence appeared to be alcohol intoxication. Paramedics may benefit from security escort for clients with history of alcohol intoxication or violence and more teaching on self-defence and soft restraints. Current training and protocols should be revised to meet these needs.

*Guek Khim Tay, Abd Rahman Abdul Razak, Kenneth Foong, Qin Xiang Ng and Shalini Arulanandam are with the Singapore Civil Defence Force.* 

Taking Stock: Abuse of Process Within the International Court of Justice by Azfer Ali Khan and Luke Tattersall.

*The Law & Practice of International Courts and Tribunals* 19(2), August 2020

The doctrine of abuse of rights exists as a general principle of international law and can be found embodied, either explicitly or deriving expression through other principles, within the majority of domestic legal systems. Abuse of process is a specific invocation of this principle, but the International Court of Justice has always demonstrated reluctance to utilise this doctrine. In light of developments of abuse of process in the international arena as well as the United Kingdom and Singapore, one way forward for the International Court of Justice would be to recognise the abuse of process doctrine as a case management tool and more readily make use of it to preserve the integrity of the proceedings before it.

Azfer Ali Khan is with the Singapore Police Force





#### Managing Inmates with Mental Disorders: The Psychiatric Housing Unit of Singapore Prison Service

By Rashida Mohamed Zain, Georgina Tay, Jessie Yeung, Rossheema Binte Haniff and Padma D/O Jairam

#### Advancing Corrections Journal 9, June 2020

Inmates with mental disorders present as a population that require large amounts of resources to manage and treat. Furthermore, these individuals tend to commit disciplinary infractions and tend to reoffend at a higher rate than the mainstream incarcerated population. This poses as a challenge to correctional facilities all over the world and best practices on the management and treatment of this specialised population are widely sought after. In 2011, the Psychiatric Housing Unit under the Singapore Prison Service commenced operations and started the admissions of inmates with mental disorders into the facility. This article seeks to document the background and key processes within this specialised housing unit, specifically in the management and treatment of inmates with mental disorders.

Rashida Mohamed Zain, Georgina Tay, Jessie Yeung, Rossheema Binte Haniff and Padma D/O Jairam are with the Singapore Prison Service.





# Lying about flying: The efficacy of the information protocol and model statement for detecting deceit

By Aldert Vrij, Sharon Leal, Haneen Deeb, Stephanie Chan, Majeed Khader, Whistine Chai and Jeffery Chin

#### Applied Cognitive Psychology 34 (1), January /February 2020

Due to time constraints, interviews aimed to detect deception in airport settings should be brief and veracity assessments should be made in real time. In two experiments carried out in the departure hall of an international airport, truth tellers were asked to report truthfully their forthcoming trip, whereas liars were asked to lie about the purpose of their trip. In Experiment 1, we examined five verbal cues that we thought had potential to discriminate truth tellers from liars in short airport interviews: elaboration in disclosing information, checkable details, how many people are aware of the trip, complications, and plausibility. In Experiment 2, we attempted to improve the interview protocol by adding a second interview phase in which we introduced an information protocol and model statement. All five cues differentiated truth tellers from liars in both experiments, but the information protocol and model statement the end of the trip is the information protocol and model statement.

Stephanie Chan, Majeed Khader and Whistine Chai are with the Home Team Behavioural Sciences Centre. Jeffery Chin is on secondment to the Ministry of Social and Family Development. Safeguarding Every Day: 200 Years of the Singapore Police Force By Koh Buck Song

Straits Times Press, 2020

A commemorative publication to celebrate 200 years of the Singapore Police Force (SPF), *Safeguarding Every Day* encapsulates the SPF's bicentennial heritage and developments – from its rudimentary founding in 1820, through the colonial era, to internal self-government and briefly being part of Malaysia, and to the modern professional police force ensuring the nation's safety and security today. The SPF's devotion to public service and commitment to operational excellence would not have been possible without the contributions and sacrifices of past and present officers. To inspire future generations, the SPF's resilience and resourcefulness come through in the many ways in which it adapts to changing security threats, be it dealing with secret societies and communal unrest in the past or fighting crime and terrorism among other emerging challenges today.



#### **Acknowledgements**

The *Home Team Journal* would like to thank the following for providing the photographs used on the cover:

- Central Narcotics Bureau
- Home Team News
- Home Team Science and Technology Agency
- Singapore Police Force