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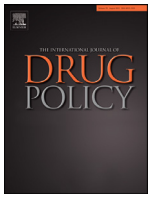

Review

Continuity of opioid substitution treatment between prison and community in Southeast Asia: A scoping review

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ABSTRACT

Background: Criminalisation of drug use and compulsory detention has largely characterised the Southeast Asia region's response to people who use drugs. Whilst access to and provision of healthcare for people living in prison are mandated by international human rights standards, many opioid dependent people living in prison continue to lack access to opioid substitution treatment (OST) during incarceration, and face uncertainties of continuity of care beyond the prison gate.

Methods: A scoping review using Arksey and O'Malley's framework mapped what is currently known about the continuity of OST post-release in Southeast Asia, with a focus on the three countries (Indonesia, Malaysia, Vietnam) that provide OST in at least one prison. A multi-lingual systematic search (English, Malay, Indonesian, Vietnamese) on Medline, CINAHL, Scopus, Web of Science, PsycINFO and the Cochrane Library collected and reviewed extant relevant published empirical and grey literature including government reports between 2011 and 2021. Of the 365 records found, 18 were eligible for inclusion following removal of duplicates and application of exclusion criteria. These records were charted and thematically analysed.

Results: Three main themes were generated: *Facilitators of post release continuity of care, Barriers to post release continuity of care and Therapeutic considerations supporting post release continuity of care.* When individual and structural gaps exist, disruptions to continuity of OST care post release are observed. Adequate methadone dosage of >80mg/day appears significantly associated with retention in post-release OST.

Conclusions: The review highlights the facilitators, barriers and therapeutic considerations of continuity of care of OST between prison and community for people living in prisons from Indonesia, Malaysia and Vietnam. Improving community services with family support are key to supporting continued OST adherence post release along with reducing societal stigma towards people who use drugs and those entering or leaving prison. Further efforts are warranted to ensure parity, quality and continuity of OST care post release.

Background

Deprived of their liberty, the dignity, health and well-being of people living in prison are often ill considered and ill-resourced. This is the reality for an estimated 11.7 million worldwide, with the global prison population increasing by more than 25% since 2000 (United Nations Office on Drugs and Crime, 2021). 2.2 million people are detained and sentenced for drug offences due to repressive and punitive drug laws (Penal Reform International, & Thailand Institute of Justice, 2022). The syndemic of infectious diseases and opioid use disorder is highly prevalent amongst people living in prison and necessitates the provision of evidence- and rights-based treatment (Kamarulzaman et al., 2016). With illicit opioid use being the most harmful, accounting for two-thirds of drug-related deaths (United Nations Office on Drugs and Crime, 2022a), opioid substitution treatment (OST) with methadone or buprenorphine remains the most effective treatment for opioid use disorder (World Health Organization & United Nations Office on Drugs and Crime, 2020).

Despite the well-documented evidence of the benefits of OST for people living in prison and wider society, only 59 countries worldwide currently provide OST in at least one prison (Harm Reduction International, 2020a). Substantial evidence affirms that people living in prisons who receive OST have a decreased risk of illicit opioid use, overdose, risk behaviours, recidivism and mortality; are more likely to remain in

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OST post-release; have improved health outcomes and quality of life; and an increased likelihood of staying in employment one-year post-release (Malta et al., 2020; Moore et al., 2019; Sander et al., 2019; Saulle et al., 2017). Those provided with a robust continuum of care post-release experience significantly decreased rates of non-fatal overdose and mortality (Malta et al., 2020). Challenges in adopting and routinising OST in prisons are however reported to range from concerns of medication diversion and safety, to constraints associated with restrictive legislations, organisational resources and ineffective continuity of care (Friedmann et al., 2012).

We report here from Southeast Asia which continues to be a hotspot for illicit drug production, trafficking and use including heroin and increasingly, methamphetamine, amphetamine-type stimulants and precursor chemicals (United Nations Office on Drugs and Crime, 2022c). The World Drug Report 2022 approximates that 3.1 million opioid users aged 15 to 64 years reside in East and Southeast Asia (United Nations Office on Drugs and Crime, 2022b), although actual estimates are likely underreported. Mapped data of drug trafficking flows from UNODC has identified Myanmar and Laos as source countries of heroin shipments, and Cambodia, Malaysia, Thailand and Vietnam as transit or destination countries (United Nations Office on Drugs and Crime, 2022b). During 2019 – 2020, treatment cohorts for opioid use disorder in Southeast Asia were concentrated in Myanmar, Vietnam and Malaysia, with heroin most commonly used (United Nations Office on Drugs and Crime, 2022b).

Against this backdrop, since the 2000s the regional's resounding *'war against drugs'* ostensibly aiming for a *'drug-free ASEAN'* has been characterised by draconian laws; proliferation of abstinence- and detoxification-based compulsory drug detention centres in Cambodia, Laos, Malaysia, Myanmar, Vietnam and Thailand; capital punishment in Singapore; overcriminalisation of drugs in Philippines and overcrowded prisons (Harm Reduction International, 2020b; Kamarulzaman, & McBrayer, 2015; United Nations Office on Drugs and Crime, 2022a). A broad range of human rights violations have been documented (Human Rights Watch, 2010; Kamarulzaman, & McBrayer, 2015; United Nations Office on Drugs and Crime, & Joint United Nations Programmes on HIV/AIDS, 2022a). In 2015, at the Third Regional Consultation, countries pledged to implement the recommendations from the Regional Framework for Action on Transition from compulsory detention facilities to voluntary community-based approaches (United Nations Office on Drugs and Crime et al., 2015). Despite United Nations agencies calling for the permanent closures of compulsory drug detention centres in 2012 (United Nations, 2012) and 2020 (United Nations, 2020), these have largely not materialised despite incremental steps towards phasing them out (United Nations Office on Drugs and Crime, & Joint United Nations Programmes on HIV/AIDS, 2022a). There is no comprehensive action plan to coordinate the transition, as stipulated in the Regional Framework for Action on Transition (United Nations Office on Drugs and Crime, & Joint United Nations Programmes on HIV/AIDS, 2022b).

Alongside this shift, voluntary, community-based drug treatment including needle syringe programmes (NSP) and methadone maintenance therapy (MMT) are gradually growing in most Southeast Asian countries (Harm Reduction International, 2021). It is well recognised that prisons are high-risk environments for illicit drug use and transmission of infectious diseases and people living in prison have a right to equivalence of care, particularly to parity of drug dependence treatment equivalent to that which is available in communities (International Committee of the Red Cross, 2022; Penal Reform International, & Thailand Institute of Justice, 2022). Prison-based harm reduction services in Southeast Asia however remain very limited with MMT unavailable in most countries and only available in selected prisons in Indonesia, Malaysia and Vietnam (Harm Reduction International, 2021). See Table 1.

Given the key role that drug use plays in deaths (for example overdose) and transmission of HIV on release from prison (Merrall et al., 2010), establishing committal and discharge plans for OST and linkages in the community to ensure post release continuity of care is crucially important in helping to ensure continued harm reduction and treatment engagement for an at risk population. Hence, in order to map and describe what is known to date, a scoping review based on Arksey and O'Malley's (2005) framework was conducted with an explicit focus on post release continuity of care in three countries (Indonesia, Malaysia, Vietnam) which currently provide OST in one or more prisons.

Methods

Scoping reviews are an evidence synthesis method that aim to map extant literature on a particular topic or research area, in order to identify key concepts, gaps in research and the current body of evidence to inform practice, policy and future research (Levac et al., 2010; Daudt et al., 2013). This approach is especially useful when a topic (such as ours) has not been extensively reviewed (Landa et al., 2010). We closely adhered to the Arksey and O'Malley (2005) stages consisting of: (1) identifying the research question, (2) identifying relevant studies, (3) study selection, (4) charting the data and (5) collating, summarising and reporting the results. The underpinning research question was, *'What is known in the literature about the continuity of OST post release in Southeast Asian countries which offer OST in prisons (Indonesia, Malaysia and Vietnam)?'* The term *'prison'* was defined and used as representing all detention facilities that house individuals on-remand and those convicted (Ako et al., 2020). The search strategy was developed using the Population, Concept and Context (PCC) framework, in consultation with an academic librarian. Detailed search terms were generated and combined using Boolean operators. In view of the cultural and linguistic diversity of Southeast Asia, a multi-lingual search strategy was adopted using key search terms in English and in the official languages of the three countries in focus: *Bahasa Indonesian, Bahasa Malaysian* and *Vietnamese*. See Table 2.

Comprehensive searches for peer-reviewed empirical studies were conducted in June 2022 on Medline, CINAHL, Scopus, Web of Science, PsycINFO and the Cochrane Library, and restricted to the time period of 2011 to 2021. A grey literature search was also performed to include international, regional and national guidelines and policies, non-governmental organisation reports, editorials, conference proceedings, and theses. All literature irrespective of their study design was included if focused on OST among prison populations and pertinent to the bridge of the post release OST care continuum. Further search strategies included hand searching of reference lists of included studies. All records were managed using the bibliographic software, EndNote, with duplicates removed manually. The title and abstract of each record were screened by the first author and cross checked by authors two and three. Following the screening process, full-text versions for all eligible records were procured. When required, records that fulfilled the inclusion criteria were translated into English by the lead author and a native Vietnamese speaker. A second screening of the full-text of each record was conducted. At this stage, records were excluded if studies did not meet the eligibility criteria. See Fig. 1.

After the exclusion measures were applied, 18 records consisting of peer-reviewed and grey literature were charted and thematically analysed as per Levac et al. (2010). Charting involved collection and sorting key information from each record. A spreadsheet was used to chart relevant data, namely the year of publication, authors, location, method, study aim, key findings and conclusion to identify themes, similarities or gaps in the literature. A trial charting exercise of 3 records was conducted as recommended by Levac et al. (2010), followed by a team consultation to ensure alignment with the research question and scoping review aims. See Supplemental Table 3.

Charted records were from Malaysia (n=10), Indonesia (n=6), Vietnam (n=1) and one with regional Southeast Asian regional focus (n=1). Qualitative studies involved prison visits and interviews with men living in prison (Malaysia, n=1) (Copenhaver et al., 2011) and only one with women living in prison (Indonesia, n=1) (Rahmah et al., 2014), together with prison physicians and officers in both countries. All quan-

Table 1
Prison profiles and availability of OST in at least one prison and/or in the community in Southeast Asia.

Countries	Prison population total (including pre-trial detainees / remand prisoners)	Number of Prisons 1	Occupancy level (based on official capacity)[1]	OST in at least one prison	OST in the community[2]
Brunei	841 at 28.11.2020 (Ministry of Home Affairs) 11.9% Female (2019)	3	143.8% (28.11.2020)	x	x
Cambodia	39 000 at July 2021 (Ministry of Interior) 6.6% Female (July 2021)	29	354.5% (July 2021)	x	√
Indonesia	275 518 at 4.10.2022 (national prison administration) 4.9% Female (4.10.2022)	526	208.6% (4.10.2022)	√	√
Laos	11 885 at June 2018 (national prison administration, via UN Human Rights Committee) 13.7% Female (June 2018)	19	No data	x	x
Malaysia	76 336 at 5.10.2022 (national prison administration) 5.9% Female (mid-2021)	52	113.5% (25.8.2021)	√	√
Myanmar	100 324 at May 2020 (national prison administration) 12.3% Female (early 2017)	46	111.5% (May 2020)	x	√
Philippines	166 912 at mid-2021 (48,312 in BuCor prisons, 118,600 in BJMP jails) (via Asian & Pacific Conference of Correctional Administrators) 9.8% Female (mid-2021)	440	c. 362.0% (31.5.2021 - 403% in prisons, c. 348% in jails)	x	x
Singapore	10 262 at 31.12.2021 (national prison administration) 10.8% Female (31.12.2021)	13	79.2% (September 2013)	x	x
Thailand	285 572 at 1.11.2021 (national prison administration) 11.5% Female (1.11.2021)	143	339.1% (1.12.2018)	x	√
Vietnam	125 697 at mid-2019 (via Asian & Pacific Conference of Correctional Administrators) 12.1% Female (mid-2019)	54	No data	√	√

[1] World Prison Brief, 2022. www.prisonstudies.org
[2] Harm Reduction International, 2021. https://www.hri.global/global-state-of-harm-reduction-2021

Table 2
Search terms and strategy (multi-lingual).

PCC Framework	Search Reference	Search Strings	Indonesian (Bahasa Indonesia)	Malay (Bahasa Malaysia)	Vietnamese
Population	S1 (PLP)	(prisoner* OR inmate* OR detainee* OR offender* OR incarcerat* OR imprison* OR “PWUD” OR “PWID”)	(tahanan ATAU narapidana ATAU “PWUD” ATAU “PWID”)	(banduan ATAU tahanan ATAU pesalah ATAU “PWUD” ATAU “PWUD”)	(tù nhân HOẶC người bị giam giữ HOẶC phạm nhân HOẶC kết án HOẶC bỏ tù HOẶC “PWUD” HOẶC “PWID”)
	S2 (Drug dependence)	(drug OR heroin OR opioid* OR opiate* AND (use OR abuse OR dependence OR addict*)	(narkoba ATAU heroin ATAU opioid ATAU opiat) DAN (penggunaan ATAU penyalahgunaan ATAU ketergantungan ATAU pecandu)	(dadah ATAU heroin ATAU opioid ATAU opiat) DAN (guna ATAU penyalahgunaan ATAU pergantungan ATAU penagih*)	(ma túy HOẶC heroin HOẶC opioid HOẶC opiate) VÀ (sử dụng HOẶC lạm dụng HOẶC phụ thuộc HOẶC nghiện)
Concept	S3 (Drug treatment, Harm Reduction)	("opioid substitution therapy" OR "opioid substitution treatment" OR “OST”) OR (methadone OR “methadone maintenance treatment”) OR (buprenorphine)	("terapi substitusi opioid" ATAU "rawatan substitusi opioid" ATAU “OST”) ATAU (metadon ATAU metadona ATAU "terapi rumatan metadon" ATAU buprenorfin)	("terapi penggantian opioid" ATAU "terapi penggantian opioid" ATAU "OST") ATAU (metadon ATAU “program rawatan metadon”) ATAU (buprenorfin)	(liệu pháp thay thế opioid HOẶC "OST") HOẶC (methadone HOẶC "điều trị duy trì bằng methadone") HOẶC (buprenorphine)
	S4 (Rehabilitation)	(reintegration OR reinsertion OR re-entry OR “rehabilitat* care” OR transition) OR ("continuity of care" OR support OR psychosocial)	(reintegrasi ATAU “masuk kembali” ATAU "perawatan rehabilitasi) ATAU transisi) ATAU ("kesinambungan perawatan" ATAU dukungan ATAU psikososial)	(reintegrasi ATAU “pemasukan semula” ATAU “rehabilitat*” ATAU peralihan) ATAU ("kesinambungan penjagaan" ATAU sokongan ATAU psikososial)	(tái hòa nhập HOẶC phục hồi chức năng chăm sóc HOẶC (chuyển tiếp) HOẶC (“tiếp tục chăm sóc” HOẶC hỗ trợ HOẶC tâm lý xã hội)
Context	S5 (In-Prison and Post-Incarceration)	(jail* OR gaol OR prison OR “closed setting” OR correction* OR detention) OR (community) AND (release OR “post-release” OR “post-incarceration”)	(penjara ATAU “lembaga pemasyarakatan” ATAU tahanan) ATAU (komunitas) DAN (pembebasan ATAU “pasca-pembebasan” ATAU “pasca-penahanan”)	(penjara ATAU penahanan) ATAU (komuniti) DAN (pembebasan ATAU “selepas pembebasan” ATAU “selepas pemenjaraan”)	(nhà tù HOẶC nơi giam tư HOẶC trai giam HOẶC HOẶC giam giữ) HOẶC (cộng đồng) VÀ (thả HOẶC "sau khi thả" HOẶC "sau khi bị giam giữ")
	S6 (Southeast Asia)	("South East Asia" OR “Southeast Asia” OR "ASEAN") OR (Indonesia OR Malaysia OR Vietnam)	("Asia Tenggara" ATAU "ASEAN") ATAU (Indonesia ATAU Malaysia ATAU Vietnam)	("Asia Tenggara" ATAU "ASEAN") ATAU (Indonesia ATAU Malaysia ATAU Vietnam)	("Đông Nam Á" HOẶC "ASEAN") HOẶC (Indonesia HOẶC Malaysia HOẶC Việt Nam)
Combining searches	S7 = S1 AND S2; S8 = S3 OR S4; S9 = S5 AND S6; S10 = S7 AND S8 AND S9				

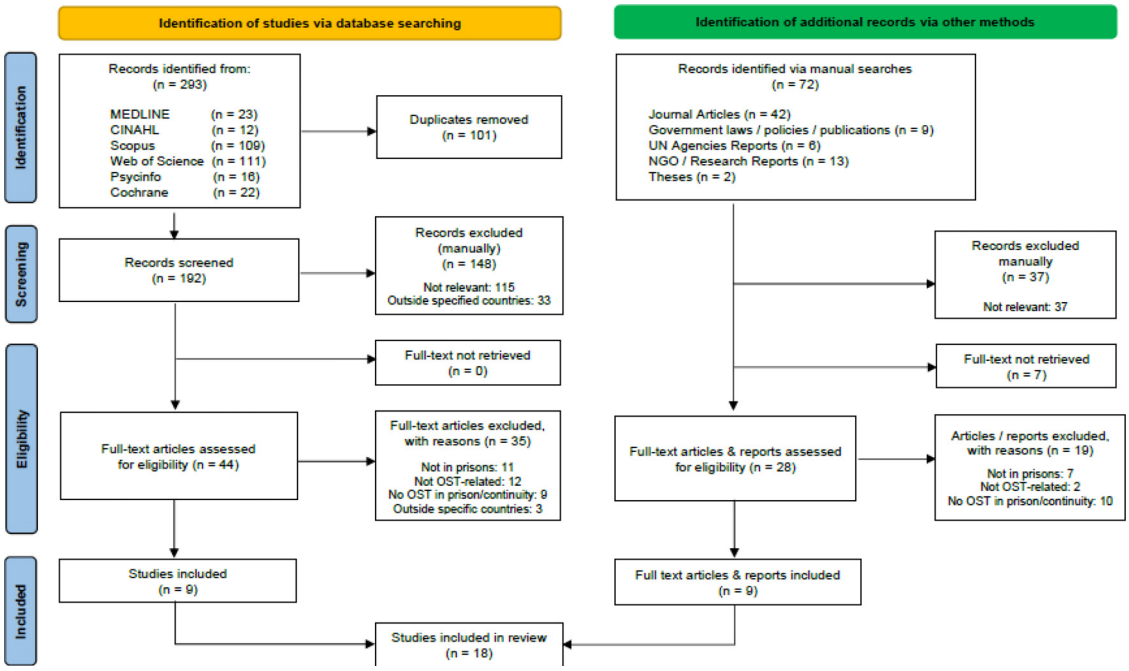

Fig. 1. PRISMA flowchart.

titative studies were conducted with men in Malaysian prisons; evaluating the impact of methadone dose on post-release retention treatment (Wickersham et al., 2013), identifying individual preferences and factors toward prison-based MMT (Mukherjee et al., 2016) and examining post-release mortality and possible survival benefits of pre-release OST (n=3) (Bazazi et al., 2021). The mixed-methods study with Malaysian men living in prison involved an evidence-based randomised clinical trial with interviews (n=1) (Bazazi et al., 2017). A secondary analysis of data (Malaysia, n=1) (Musa, & Yee, 2021), two reviews (Culbert et al., 2016; World Health Organization, 2011) and a case study (Wickersham et al., 2013) from Malaysia (n=3), two evaluation reports (Firdaus, 2020; National Narcotics Board Republic of Indonesia, 2020) and a brief (Burnet Institute, n.d.) from Indonesia (n=3) were included. National laws or guidance from Malaysia (n=1) (Ministry of Health Malaysia, 2016), Indonesia (n=2) (Ministry of Health, & Ministry of Law and Human Rights Republic of Indonesia, 2012; Ministry of Health Republic of Indonesia, 2013) and Vietnam (n=1) (Ministry of Health Vietnam, 2015) and a regional guidance document (n=1) (United Nations Office on Drugs and Crime, 2014) were also charted.

Three themes emerged; Facilitators of post release continuity of care, Barriers to post release continuity of care and Therapeutic considerations supporting post release continuity of care. Here, a trend of structural and individual factors emerged and was incorporated within the thematic analyses. When opinions differed between reviewers, consensus was reached through team discussions.

Results

Facilitators of post release continuity of care

National /regional guidelines and/or laws on OST continuity of care (Structural)

In accordance with international protocol by UNODC (United Nations Office on Drugs and Crime, 2014), all three countries outlined the essential guidelines for MMT at national level, with additional stipulations in their respective contexts. For example, Indonesia's Ministry of Health Indonesia Law No. 57 Year 2013 on Methadone Maintenance Therapy (Ministry of Health Republic of Indonesia, 2013) specifies that in the absence of methadone centres in a certain locality, the individual is transitioned post-release to the nearest buprenorphine substitution treatment close to where they live or will begin their new activity following the conversion from methadone to buprenorphine schedule. Across the national guidelines and/or laws in Indonesia (Ministry of Health Republic of Indonesia, 2013), Malaysia (Ministry of Health Malaysia, 2016) and Vietnam (Ministry of Health Vietnam, 2015), it was evident that having clear and detailed procedures on providing MMT during pre-release, post release and transitioning to community-based MMT is the first step in creating an ecosystem of continuity of care for opioid-dependent people leaving imprisonment. When translated into action, the Burnet Institute observed how high levels of integration between Indonesian prisons and community health services led to expansion of MMT services in a further 10 prisons and detention centres (Burnet Institute, n.d.).

Training and capacity building of prison personnel (Structural)

Records indicated that it is important to sensitise prison health and correctional staff in the provision of MMT in prison, including regarding the importance of adequate support during intake from the community, prison discharge and referral planning in support of the post release continuum of care. Wickersham et al. (2013) found that primary care physicians in a Malaysian prison pilot programme were initially reluctant to initiate MMT in prisons as they felt uncomfortable treating opioid-dependence. This was resolved by having one-to-one training and supervision with the physicians particularly around advised medical treatment regimes including committal and discharge planning, and regarding post release MMT care. Copenhaver et al. (2011) similarly acknowledged prison officers' positive outlook towards methadone and how it might benefit people living in prison in the delivery of MMT during incarceration and beyond. Prison officers from Malaysia remarked in 2011:

> *"For me, the prisoners feel they have been given a chance [and] that we in the prison have given [them] a chance to be in a program that before was only done outside of prison. So, for me, his heart feels that he is not cast aside because we could run a program that was outside and is now in the prison."* (Copenhaver et al., 2011)

Intrinsic motivation and positive changes from methadone therapy (Individual)

Receptiveness of people living in prison to continue with MMT on entry into prison, or to enrol, stabilise and continue with MMT post release appeared to be sustained by prior adverse social, legal and psychological consequences of drug use, and the consequent range of new positive experiences and outcomes when in treatment which included regaining a sense of normality and the gradual possibility of being employed post-release (Mukherjee et al., 2016; Copenhaver et al., 2011).

Family support (Individual)

The value of family support in terms of understanding more about MMT and supporting those released from prison in their journey towards recovery is crucial. Copenhaver et al. (2011) observed that people living in prison who were returning or had returned to their families in Malaysia described that including their family members in educational sessions related to their treatment post release was beneficial. Advice and encouragement from family members along with professional advice was highlighted as the most important thing to support post release stabilisation and ongoing recovery when living in the community (Copenhaver et al., 2011).

Barriers to continuity of care

Lack of trained prison personnel and high turnover rates (Structural)

In as much as trained prison workforce facilitated MMT, the lack of trained personnel consistently hampered the adequate implementation of the prison based OST continuum regarding entry treatment continuation, and particularly regarding discharge referral and community supports for former prisoners in the three countries. In a review of Malaysian prisons, Culbert et al. (2016) underscored the lack of specialist physician training. A similar reality was echoed by studies evaluating MMT in Indonesian prisons where the rehabilitation team lacked sufficient training in prison based delivery and subsequent coordination of the post release MMT continuum of care for discharged prisoners (Firdaus, 2020; National Narcotics Board Republic of Indonesia, 2020). Evidence from Malaysia suggested that while highest-ranking prison officials supported the prison based methadone maintenance programme, the high turnover rates among lower-ranking staff threatened to jeopardise the administration and coordination of treatment inside the prison and post release where patients on MMT were discharged into the community (Wickersham et al., 2013).

Lack of coordination and data management between prison and community (Structural)

The breakdown in internal communications among prison personnel and their counterparts were hindrances to successfully implementing MMT in prisons, with consequent impact on discharge planning and monitoring. In a study among Indonesian women living in prison, prison physicians voiced their disappointment with getting inadequate staff, medicines and reagents as this interrupted access to care and stabilisation on MMT in prisons. They attributed this to the lack of coordination between community health centres, prisons and government departments (Rahmah et al., 2014). Indirectly this impacted on the OST continuum of care for people entering, living in and exiting prisons. Evidence from both Malaysia and Indonesia revealed further critical gaps in data availability, accessibility and integration of care for people living in prison. Gaps centred on the lack of attention directed to people living in prison who were opioid-dependent, their release dates and the almost inexistent prison and public health system tracking of those on OST (Firdaus, 2020; Wickersham, Marcus, et al., 2013). This lack of consolidated data further hampered communications with community-based MMT on committal, post-release and interrupts the continuum of care.

Limited availability and interferences in continuity of care (Structural)

Amidst the countless community re-entry challenges that potentially loom ahead for those leaving closed settings, people living in prison on MMT in particular face the uncertainty of continuity of care upon exit at the prison gate. In some instances, people who were previously involved in the criminal justice system are at the mercy of the local police upon release. For example, Wickersham et al. (2013) highlighted how people living in prison in Malaysia are subjected to police orders to relocate to a remote area post-release. These imposed corrective measures were often implemented without notifying the Prisons Department, who were left to scramble to coordinate and ensure that the former prisoners had access to MMT sites in the community. This often decreased the likelihood of retention in care among those discharged and relocated (Wickersham, Marcus, et al., 2013).

Two studies among Malaysian people living in prison documented how when leaving prison, they struggled with getting access to community-based MMT post-release (Copenhaver et al., 2011; Wickersham, Marcus, et al., 2013). To illustrate this, Wickersham et al. (2013) highlighted how individuals returning to rural settings were left with little choice to either forfeit MMT or agree to travel to a community MMT site. Here, it was found that a travel distance exceeding 25km was associated with low retention in treatment.

Meanwhile, former people living in prison seeking MMT in the community were also forced to contend with menacing interferences and frequent harassments involving bribery, intimidation, threats of detention and arbitrary arrests by the police (Wickersham, Marcus, et al., 2013). These harrowing experiences in turn deterred them from attempting to access community based OST post release or in some cases, led them to discontinue completely (Culbert et al., 2016; Wickersham, Marcus, et al., 2013). These experiences inevitably disrupted post release continuity of care during re-entry into the community.

Side effects and long-term concerns of being on methadone (Individual)

Undesirable side effects were identified as a barrier to implementing MMT in a Malaysian prison (Culbert et al., 2016). Another study from Malaysia reported that men accessing prison-based MMT reported that they had experienced the side effects of methadone which included drowsiness, constipation, itchy skin, vomiting and diarrhoea but eventually accepted this reality upon realising their long-term need for methadone (Copenhaver et al., 2011). People living in prison on MMT while awaiting release also expressed their concerns about continuing their methadone treatment for long-term post release and how that would potentially cause interruptions to their work schedule when employed post-release (Bazazi et al., 2017).

Therapeutic considerations supporting continuity of care

The timing of MMT initiation, dosage and retention post-release from prison were inter-related. A study among men in Malaysian prisons recommended that MMT initiation commence at least six months prior to release (Wickersham, Zahari, et al., 2013). This suggested timeframe allows for monitoring and stabilisation of MMT doses to address any side effects and cravings during incarceration, in preparation for discharge from prison to community. A gradual escalation of the daily starting dose was advised (Wickersham, Zahari, et al., 2013). Bazazi et al. (2017), however, highlighted that the target daily dose of >80mg was not reached for some people living in prison on pre-release methadone due to the sedative effect that resulted in a slower titration schedule and inadequate time before prison release. In contrast, individuals who were released on a daily methadone dose >80mg were associated with enhanced retention in treatment 12 months post-release (Culbert et al., 2016; Musa, & Yee, 2021; Wickersham, Zahari, et al., 2013). This underpins the significant impact of adequate prescription and gradual dispensing of methadone dose to people living in prison

in order to facilitate optimal post release continuity of care and prolonged retention in treatment post-release. Notably, no studies involving women living in prison with regards to MMT dosage and retention were identified.

Discussion

This is the first known review to scope the literature on post release continuity of OST in the Southeast Asian region. Whilst small scale due to the dearth of literature, the review illustrates the insufficient attention and priority given towards post release continuity of care of drug dependent people living in prison in national and regional agendas in a political climate in a region that continues to adopt a punitive approach. Contrary international guidance and accepted best-practice, availability and access to OST for people living in prison in Southeast Asia is severely lacking, with exception of Indonesia, Malaysia and Vietnam which provide OST in the community and in at least one prison. Provision of MMT in these prisons whilst encouraging is however hampered by a range of individual and structural level factors which duly impact on optimal continuity of care spanning committal, prison and discharge. Key factors which would support enhanced implementation along the care continuum cognisant of the revolving door of incarceration and relapse itself, include monitoring and health surveillance across prisons and community public health systems, prison staff capacity building, information for MMT patients and supply of take home doses/prescription on discharge, linkage between community MMT providers and the prison, and a post release referral mechanism for discharged prisoners linking them to community drug services and various family, social and psychological supports. A concerted effort should address structural barriers to post release continuity of care for those entering prison on MMT and those initiated within prison walls. Trusted civil society play an important role in supporting this key transition by providing community linkages for those leaving prisons.

Continuity of care for people leaving prison is acknowledged as a problematic area worldwide; establishing such bridges linking prison, prison release and return to the community are necessary to prevent and reduce the risks of relapse, overdose, injection risk behaviours, bloodborne infectious diseases, recidivism and reincarceration (World Health Organization, & United Nations Office on Drugs and Crime, 2020). Effective treatment of people in prison that is continued both on entry to prison and on release back into the community has benefits not only for the individual but for wider society; there will be a '*community dividend*'. Findings from the countries of focus have affirmed the cost-effectiveness of MMT. A cost-effectiveness analyses by Wammes et al. (2012) showed that expanding MMT in Indonesia from 5% coverage in 2012 to a 40% coverage in 2019 would avert approximately HIV infections at an estimated cost of USD 7,000 per HIV infection averted, affirming that MMT was likewise cost-effective. In comparison, Naning et al. (2014) confirmed that between 2006 and 2013, MMT in Malaysia was cost-effective in averting 12,191 HIV infections corresponding to healthcare cost savings of RM 47.06 million (approximately USD 10.08 million) and 51,565 quality-adjusted-life years (QALYs) gained. Programmes implemented were projected to have long-term epidemiological and economic benefits. Meanwhile, in Vietnam, Tran et al. (2012) reported that MMT substantially improved QALYs of HIV/AIDS patients and for every QALY gained, the MMT programme would cost USD 3,745.30. Further findings demonstrated that over a three-year period, MMT in community-based voluntary MMT treatment in Vietnam cost on average USD 4,108 less than compulsory detention and on average, a MMT participant gained an additional 344 drug-free days, suggesting that MMT was a cost-effective alternative (Vuong et al., 2016).

In terms of human and gendered rights, the review illustrates a shift in some countries in the Southeast Asian region that addiction is a health issue and requires treatment (World Health Organization, & United Nations Office on Drugs and Crime, 2020). A public health harm reduction approach to supporting people deprived of their liberty and when they are released into their communities is key. Indonesia, Malaysia and Vietnam are forerunners in the region who have embraced the necessity of change in providing evidence based drug treatment and harm reduction approaches in their prison systems. Documented evidence also presents that Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand and Vietnam have shown promising progress in transitioning towards voluntary community-based drug dependence treatment in recent years (United Nations Office on Drugs and Crime, & Joint United Nations Programmes on HIV/AIDS, 2022b), even as compulsory detention facilities persist. While treatment modalities differ among countries, individualised medical treatment, counselling and MMT are predominantly available and in certain settings, psychosocial intervention, faith-based programmes and vocational training are included (United Nations Office on Drugs and Crime, & Joint United Nations Programmes on HIV/AIDS, 2022b). With this growing availability of OST in the community, the challenge remains to support health surveillance and the explicit focus on continuity of care ***in and out*** of prison.

International standards stipulate that effective coordination involving the criminal justice system collaborating closely with health and social services facilitate access to treatment and social services for people living in prison and after their release (World Health Organization, & United Nations Office on Drugs and Crime, 2020).The state holds responsibility for those deprived of liberty and thus, must provide healthcare in prisons, without discrimination and offered at the same level of care as the community, treating every prisoner with respect for their inherent dignity and value as human beings and according to their needs (United Nations Office on Drugs and Crime, 2010; World Health Organization, 2014; United Nations, 2016). Healthcare services in prison should be equivalent to those provided in the community (World Health Organization, & United Nations Office on Drugs and Crime, 2020). However, findings from this scoping review suggest that the normative standards provided in the international United Nations Standard Minimum Rules for the Treatment of Prisoners (the Nelson Mandela Rules) (A/RES/70/175) regarding right to access of healthcare (non-discriminatory and equivalent to that in the community) (United Nations, 2016) has largely not been implemented or adhered to, particularly with regards to provision of OST in prisons in Southeast Asia. The denial of OST to those deprived of their liberty could potentially constitute inhumane and degrading punishment, as highlighted by UN Special Rapporteur in previous instances elsewhere in the world (South Africa, Spain) (SANPUD et al., 2019). Some countries do not provide OST at all (Brunei, Laos, Philippines, Singapore). Many still need to provide OST in prisons. Those that provide only community based OST (Cambodia, Myanmar, Thailand) are jeopardising the health gains made in supporting people with drug use disorder who are also at risk of incarceration. Post release continuity of care warrants attention and support.

The efficacy of MMT has been consistently reported and international guidelines on implementation of OST in custodial settings are available (World Health Organization, & United Nations Office on Drugs and Crime, 2020). Prison governance including delivery of drug services must be subject to internal and independent monitoring and evaluation (Penal Reform International, 2016). Intricately related to the delivery of OST in prisons is the management of human resources, that is, the recruitment, training and development, remuneration and retention of sensitised and competent prison staff (Penal Reform International, 2016; United Nations Office on Drugs and Crime, 2010; World Health Organization, & United Nations Office on Drugs and Crime, 2020). Findings confirmed the need for and importance of further sensitisation and development of financial, clinical and human resources, specialist training and data systems within prisons, in order to support committal treatment assessment, discharge planning, referrals, and optimal pre and post prison continuity of care. Despite the different responsibilities of Ministries of Health, and that of Justice, healthcare service teams in prison should work closely with community health services to ensure wrap around continuity of care (United Nations Office on Drugs and Crime, n.d.).

Table 3
Recommendations for practice, policy and research.

Sensitisation of government, and advocacy to initiate and scale up OST in the community and in prisons across the region.
Strengthening of regional, multi-sectorial and interagency collaboration and co-operation with harm reduction approaches.
Reallocation of national budgets to support voluntary, community-based diversions and treatments. Where in need, to seek funding from international donors.
Implementation and scale up of OST supported by adequate continuity of care and maintaining of accurate and up-to-date records of patients
National apps, websites or centralised data hubs mapping OST availability are proposed.
Full involvement of civil society in supporting the provision of OST in prisons, and acting in support of continued adherence to OST and the prevention of overdose.
Reform and repelling of laws that stigmatise people who use drugs and moving towards decriminalisation of drug use and possession for personal use.
Capacity building and sensitisation of prison staff to respect the basic human rights of people in prison who need treatment for drug use disorder.
Routine independent monitoring and evaluation of evidence and rights-based and gender-sensitive delivery of drug treatment services in prisons.
Continued research on healthcare in prisons, and including focus on vulnerable groups in detention and their specific health needs.

Another pertinent observation that emerged is the dearth of research and evidence of OST for women in Southeast Asian prisons. They are heavily outnumbered by their male counterparts (Asian and Pacific Conference of Correctional Administrators, 2021), leaving their needs often neglected and largely unmet by justice systems whose structures, design and delivery are primarily masculine-centric (Penal Reform International, 2013). This is observed elsewhere and fuels the continued invisible nature of women living in prison and possible systemic failures to safeguard and uphold their rights (Van Hout et al., 2021) in breach of the United Nations Rules for the Treatment of Women Prisoners and Non-Custodial Measures for Women Offenders, known as the Bangkok Rules (United Nations, 2010). See Table 3 which outlines a broad range of recommendations for practice, policy and research.

Limitations

Whilst the comprehensive search in multiple languages was used to retrieve all possible literature, limitations centre on the low number of records found, and the lack of generalisability of studies.

Conclusion

The review whilst small scale illustrates how the post release OST continuity of care in Southeast Asian countries (Indonesia, Malaysia and Vietnam) is hindered by various structural and individual barriers for opioid-dependent people living in prisons in the region, and how voluntary community-based drug dependence treatment approaches remain insufficiently available and small in scale. Where countries provide OST in selected prisons, efforts should continue to support adequate continuity of care for those entering the prison and particularly in post release period in supporting those returning to their families and communities. Lessons learnt in leveraging for prison reforms to provide OST should be shared with other countries in the region, both those providing in the community (Cambodia, Myanmar, Singapore) and those not yet providing in any setting (Brunei, Laos, Philippines, Singapore). Systemic reforms which include prison staff training and capacity building, with community level services and the dismantling of stigma are key to ensure that drug-dependent people living in prison in the region receive voluntary, evidence- and human-rights based treatment while in prison and during community re-entry and reintegration. Only then, can no one be left behind.

Availability of data and materials

All data generated and analysed for the review are available upon request from the authors.

Ethics approval

The authors declare that the work reported herein did not require ethics approval because it did not involve animal or human participation.

Declarations of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.drugpo.2023.103957.

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