Implications of Translational Research for the Field of Residential Child Care

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Abstract

This article will address a brief history of the nature and definition of translational research and introduce several relevant debates within the field of translational research, specifically the relationship between practice-based knowledge and research in therapeutic residential child care. We offer a model of translational research developed by Hamilton (2014), particularly for work related to youth development that has the potential to bring the child care practitioner to the centre of the process to improve the outcomes of high-needs children. Finally, we provide some lessons learned from the implementation and evaluation of two major programmes designed to improve the quality of therapeutic residential care.

Keywords

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Introduction

The field of residential child care has been influenced by recent developments in social work, psychology, and medicine, namely the emphasis on evidence-based practice and the growing field of translational research. Both of these developments require residential child care and the larger field of child welfare to assess its basic principles, its theories of change, and 'what works' in practice. The movement towards using evidence-based practices and programmemes with children and their families has met with scepticism and resistance from some practitioners from all professions engaged in work with families and children. This article will summarise a new model of translational research (Hamilton, 2014) focused on youth development that engages professionals and their work within organisations in the process of understanding the needs of youth as well as developing, implementing, and utilising evidence-based programmemes. The model helps to sharpen our understanding of human behaviour through basic research, as well as, enabling us to find clinical and real-world application for this basic research. A unique feature of the model is that it incorporates practitioners and researchers in full partnership to find not

only what works, but also how to use and sustain 'what works' in our real-world engagement with children and families. The authors view both translational research and evidence-based programmes through the lens of innovation, especially within organisational settings. Finally, this article discusses the lessons learned from implementing, sustaining, and evaluating a research-informed programmeme model for therapeutic residential care.

A Brief History of Translational Research

The term *translational research* arose in the biomedical research community over several decades (Drolet & Lorenzi, 2011). The focus on translational research increased as the research literature documented that it took up to 24 years (Contopoulos-Ioannidis, et al., 2008) for a discovery about a physiological process or phenomenon to yield a medical procedure that was used widely enough in clinical practice to benefit a substantial number of patients. The fields of health promotion and public health were addressing these issues, variously known as diffusion of innovation, research utilisation, dissemination theory, and implementation science (Dearing, 2008; Flay, 1986; Rogers, 2003; Titler, et al., 2007), earlier than the more clinical side of medical research. Rogers (2003) published his well-known book, *Diffusion of Innovations*, in 1983. Now in its fifth edition he addresses five inherent qualities of successful innovations that encourage their adoption and utilisation. These qualities are: 1) the advantage of the innovation is visible to the population interested in its use; 2) it is grounded within existing values and practices; 3) it is simple and easy to use; 4) it is open to experimentation and unique situations; and 5) the innovation produces observable results. Rogers goes on to say that although these qualities may be self-evident to many, not all individuals or organisations will adopt innovation at the same rate. Some organisations are early adopters; some go along, while others will resist the change. In the end, successful innovation and adoption depends on peer-to-peer conversations and networking and the modeling of 'those whose lived example is the best teacher' (Robinson, 2009, p. 2). Further longer-term sustainability of innovation comes when the innovation can be adapted to the diverse needs of individual users through the inclusion of the user in the continuous process of redevelopment and refinement. (Robinson, 2009).

Sung, et al. (2003) published one of the earliest models of translational research in the biomedical community. Since then, several other models have been proposed (Dougherty & Conway, 2008; Khoury, et al., 2007; Westfall, et al., 2007). What is common to all of these models is bidirectional movement from research to practice over time (Trochim, et al., 2011). All four models divide this continuum between research and practice into sections labeled T1, T2, T3, and T4. The models differ in the number and definition of these segments of this continuum. While the potential for feedback loops are acknowledged, the biomedical view of translational research is generally conceptualised as a linear process that proceeds from a basic science discovery to clinical research to research syntheses to practice-based research and finally to health impact.

In a social science and applied context, what is clinical research in the biomedical world is known as efficacy (ability to produce results) and effectiveness (the ability to produce results in different, real-world populations and/or settings) trials (Flay, 1986). As in the

biomedical research context, research synthesis includes literature reviews and meta-analyses that have the capacity to contrast and combine results from different studies so as to identify patterns, disagreement or other relationships, as well as, the guidelines for interventions that may be derived from those syntheses. Finally, implementation science falls under the literal rubric of practice-based research or rather research that takes place in practice settings. Implementation science, simply defined, is 'the study of methods to promote the integration of research findings and evidence into healthcare policy and practice' (Fogerty International Center, 2014).

Several Debates

One important debate in the translational research literature centres on the role of practitioners and practice-based research and evidence. Though deliberately simplified, the term 'practice-based research' says nothing about the role of practitioners in that research. Do they play an active role or are they merely subjects of work done by researchers? Recent reviews of the implementation science literature (Fixsen, et al., 2005; Meyers, 2012; Tabak, et al., 2012) that would fall under the rubric of practice-based research, demonstrate that implementation is often seen from a researcher-driven perspective. Studies have typically viewed practitioners as product recipients and data sources rather than full partners in the generation of knowledge about the dissemination, adaptation and implementation process (Emshoff, 2008; Glasgow, Green, et al., 2012; Green, 2008). Indeed, little is known about how practitioners articulate and define implementation, and if their understanding and practice aligns with models or frameworks currently used by programme developers or implementation researchers.

However, the importance of stakeholder/practitioner input is increasingly acknowledged with calls for stakeholder participation that is more than 'perfunctory and cosmetic' (Glasgow, Green, et al., 2012), for increased collaboration with 'key stakeholders, including citizens and practitioners who will need to implement and will be affected by innovations' (Glasgow, Vinson, et al., 2012, p. 1279), for practice-based evidence (Green, 2008; Green & Nasser, 2012), and for more participatory research methods such as professional (Epstein, 2010, 2011) and community-based participatory research (Glasgow, Green, et al., 2012; Green & Nasser, 2012; Minkler & Salvatore, 2012).

Another debate in the field of translational research centres on the relationship between fidelity and adaptation in evidence-based programmes or EBPs. Programmes include any curriculum-based or principle-based programmes, essential components, or practices. The more traditional models of translational research have come to see the EBP, particularly a manualised EBP, as a method through which efficacious programmes are provided to practitioners in the field. Then, if practitioners simply implement that EBP exactly as it is intended, the same outcomes and impact will be achieved. It may be that for at least some EBPs in medicine, absolute fidelity or exact adherence to the prescribed intervention is required. But the realities of human services, of psychology, and of community interventions often demand that EBPs are adapted to various populations, unique problems or communities, and the degree of programme scaling.

For example, health promotion, educational, and human service interventions usually are scaled up in settings and circumstances that are often very different from those in which the efficacy of the intervention was originally tested. These differences in context matter, so it may be that adaptations rather than absolute fidelity are necessary to maintain the efficacy of the EBP. So the debate between fidelity and adaptation raises questions that often need to be addressed empirically. Research is required to understand which interventions that make up the components of an EBP in which setting and under what circumstances require absolute fidelity or adaptation in order to achieve acceptable levels of efficacy and effectiveness.

A New Model of Translational Research

Hamilton (2014) has developed a different model of translational research (see Figure 1). Though intended for the context of youth development, this model has application in many areas, particularly those such as human services (e.g. policing, education, child welfare) where extensive practice is already taking place. Two differences between this new model and the traditional biomedical model are evident. First, even though the more traditional models of translational research acknowledge feedback and bi-directionality, they still involve an essentially linear continuum between research and practice. Hamilton's model is clearly not linear. Second, again in contrast to more traditional models of translational research where practice is sometimes a setting in which research is conducted and often a passive recipient of the products of research, Hamilton's model centres practice and practitioners in an interactive and potentially an equal partnership with researchers and evaluators.

Hamilton's model of translational research (Figure 1) includes four quadrants, each with a different focus. In the upper left, Quadrant 1, the question is 'What's happening?' This type of a research question is often addressed in demography, epidemiology, and basic observation or surveillance. Rates of risky behaviours and outcomes such as unprotected sex, pregnancy, smoking, alcohol and drug use are good examples, as are rates of child placement in group care settings and rates of behavioural incidents in those settings. This Quadrant represents research that identifies issues and who is affected by them.

Quadrant 2, the upper right circle 'What makes youth tick?', represents 'basic' research in the sense that it is focused on youth development. The new research on adolescent brain development and trauma-sensitive care are good examples of basic research that has a growing impact on our understanding of youth behaviour and thus intervention or treatment programmes, and even policies regarding youthful offenders and children subjected to abuse and maltreatment.

The lower right quadrant labeled number 3, 'What works', includes the development and evaluation of interventions. Note that labeling this quadrant, 'What works for whom and under what circumstances', would ensure the inclusion of effectiveness as well as efficacy research.

Finally, the lower left Quadrant number 4, 'How do we use what works?' includes work that we would often refer to as implementation science – diffusion, dissemination, scaling up, and adaptation.

Note that the four quadrants are differentiated by the types of questions addressed and, to a lesser extent, the types of research methods most commonly employed. For example, controlled trials are largely irrelevant in Quadrant 1. Experiments such as randomly assigned controlled studies or quasi-experimental designs are perhaps most common in Quadrant 3, but are also useful in Quadrants 2 and 4. Observational or qualitative research may be useful in any quadrant, especially when trying to determine the dynamics of the organisational and interpersonal processes that ensure that EBP interventions are efficacious and effective.

Most importantly, practice is notable and deliberately placed in the center of the model with bi-directional arrows between practice and each circle. That is as indicated by the bi-directional arrows between practice and each circle; practice can inform or inspire research in any of the circles and practice can benefit from research in any circle. The bi-directionality of the arrows between practice and each circle indicate that in addition to research influencing practice, programmes, interventions, and practices developed in the field may warrant and often lead to systematic research. Youth mentoring and timely supervision of staff are good examples of practices that were well-developed and accepted and eventually led to research establishing their efficacy and effectiveness.

The model also draws attention to the constant interchange between the types of research addressed in each quadrant. Noticing a behavioural trend in Quadrant 1 may lead to a basic study that helps us understand the trend. For example, the push to understand the biological, physiological, and even behavioural underpinnings of obesity in recent years has arisen as the trend toward obesity has become more apparent in our society.

The impact of translational research on therapeutic residential service

The emphasis on evidence-based practices and translational research in human services, especially Hamilton's model, has the potential to have a significant and positive impact on therapeutic residential services and all the organisations and agencies that serve the best interests of high-risk children and their families. Essential to the long-term survival of our field is the adaptation of a translational research model that actively integrates practitioner perspectives into basic research, as well as the development and evaluation of unique and theory-driven programme models and interventions for high-needs children. When practitioners engage in innovative research that has the potential to serve child wellbeing, they have the potential to improve practice and create learning organisations through the adoption of research based practice and innovations. The field of translational research and implementation science is just now beginning to pay attention to the organisational context in which innovation and evidence-based practice is utilised. Since therapeutic residential care depends on the agency's structures and processes to produce positive outcomes, the implementation of any innovative or evidence-based programmeming must be seen within an organisational context.

Lessons learned implementing, sustaining, and evaluating research-informed programmes for residential care.

The programmes implemented

Over the past 30 years the Residential Child Care Project has been implementing two major programmes tailored to the needs of residential child care, *Therapeutic Crisis Intervention* (TCI) and *Children and Residential Experiences (CARE)*. Both programmes have sought to translate the latest research to increase the knowledge and expertise of child-care personnel at all levels of the organisation. Our intent for both programmes is to promote more positive outcomes for both children and staff with a special emphasis on developing healthy relationships and safer environments. Both of these programmes are usually present in facilities with the TCI programme implemented first and the CARE programme implemented at a later date. Pre-post evaluations of the TCI programme show initial reductions in aggressive behaviours within the facility and when the CARE programme model is included dramatic reductions are noted.

Therapeutic Crisis Intervention (TCI) is a crisis prevention and management organisational intervention and training system that teaches strategies to interpret children's aggressive behaviours as expressions of trauma, pain, and need, and to use strategies and skills that respond to the child's needs, while reducing the potential for adult counter-aggression. The goal of TCI is for children to learn from these experiences and to improve their ability to regulate their emotions while the staff and organisation learn from these experiences and improve their abilities to meet the needs of these children.

The *Children and Residential Experiences (CARE)* model is a research-informed, principle-based, multi-component programme designed to build the capacity of residential care and treatment organisations to serve the best interests of the children. The CARE model incorporates and structures well-established findings from the social sciences literature into six basic practice principles; developmentally-focused, family-involved, relationship-based, competency-centred, trauma-informed, and ecologically-oriented. The aim of CARE is to bring agencies' ongoing functioning closer to well-researched best practices in residential care and to help them achieve congruence in the best interests of children within and between all organisational levels (Holden, 2009).

Both TCI and the CARE programme models are implemented through research-informed strategies such as organisational and personal self-assessment, data analysis, training, and technical assistance. This implementation strategy includes training that addresses all levels of the organisation and provides guidance about how to apply TCI skills and CARE principles in daily practice. Organisational technical assistance helps agency leadership and supervisors build commitment to the TCI strategies and CARE principles, develop and communicate the vision to establish congruence to the principles throughout the organisation, and facilitate, reinforce and sustain that vision. Through a process of self-reflection, agencies create structures and processes for improving collaboration, identifying barriers to integrating and sustaining TCI and CARE principles and planning

strategies for resolving those barriers, and facilitating practices to encourage data utilisation.

Build on strong foundations

Actively engaging in evidence-based programme development and utilisingan interactive translational research model to serve high needs children demands that therapeutic residential organisations have clear and strong foundational principles. Holden, et al. (2014) suggest three foundational concepts: 1) adherence to the standard of best interests of children; 2) engaging in the struggle for organisational congruence; and 3) the adoption and utilisation of an explicit principle-based programme model that relates directly to the organisation's purpose and mission.

The best interests of children has been for some time a widely-accepted international foundational principle for serving children (Goldstein, et al., 1973, 1979; United Nations, 1989); however, working towards a particular child's best interests requires adherence to a system-wide and principle-based programme model that is research-informed, evidence-based, and adheres to best practices. Any model must support family inclusion and cultural relevance, appropriate developmental programmeming, therapeutic and developmental relationships, competence-building activities, trauma-informed practices, environments that promote caring, high-expectation messages, and opportunities for contribution, learning, and participation.

Complementing these principles is the necessity to articulate an explicit and non-ideological theory of change (TOC) that outlines causal pathways by which the organisation's programme model is expected to improve the socio-emotional and developmental outcomes for children. The TOC lays the foundation for quality therapeutic residential care based on current research and provides a working model to guide the agency's structural and interactional processes necessary for successful child outcomes. In effect, a TOC ensures that the treatment and services contain the necessary ingredients for children to gain positive developmental outcomes.

Our experience with the successful implementation of both CARE and TCI sees the need for adherence to the notion of developmental relationships. Li and Julian define developmental relationships as 'human interactions characterized by four interwoven features: attachment, reciprocity, progressive complexity, and balance of power' (2012, p.164). The construct of developmental relationships is based on Bronfenbrenner's (1979) classical and succinct theoretical definition of optimal dyadic relationship that specifies four criteria: attachment, reciprocity, progressive complexity, and balance of power, as key ingredients of relationships that facilitate learning and development. Li and Julian argue 'the effectiveness of child-serving programmes, practices, and policies is determined first and foremost by whether they strengthen or weaken developmental relationships' (2012, p.157). Li (2014) has also developed tools and techniques that will help adults who care for children in alternative care settings understand the skills required to establish and sustain developmental relationships with the children and adolescents for whom they care. As these developmental relationships become the core of the interactions between adults and children in alternative care settings, we expect to be

able to measure improved relationship quality as well as improvements in the wellbeing and developmental trajectory of youth between their intake and discharge from an agency.

Pay attention to documenting your strengths and successes through quantitative and qualitative data

In our current era of evidence-based programmeming, the realities of funding a vigorous and effective therapeutic residential system through either public or private (charitable or giving foundation) will depend on the outcomes that we produce with high-needs children. In truth, both therapeutic foster care and therapeutic in-home services are cheaper than therapeutic residential care, while therapeutic residential care has not shown itself capable of equalling or exceeding the foster or in-home services outcomes. The argument for residential-based services appears limited to the shortage of therapeutic foster families and the incapacity of communities to provide community-oriented services. Mabry (2010) calls this a 'tenuous business model' where the future of residential care rests with the community's inaction and lack of resources:

> *Too much attention is paid to cost and permanency, and more attention should be paid to positive outcomes for children and families. High-quality group care can and should be part of the solution, and will be if it focuses on value rather than cost. To be relevant, however, group care must lead the clarion call for improved and documented child and family wellbeing as the cornerstone for the child welfare system. Interim steps toward this goal include pruning group care capacity and diversifying services; developing a true partnership with the public sector; and using data to drive placement decisions and create feed-back for continuous improvement.* (Mabry, 2010, pp. 19-20)

Although no one residential facility has achieved this goal there are excellent examples of public and private facilities that have partnered with universities to gather child intake and assessment data for in-depth learning about the children in their care and the outcomes that they achieve (Kuhn & Burkhart, 2012), as well as facilities that have used their own administrative data to make a compelling argument for a significant reduction in critical incidents and medication use after the implementation of the CARE programme model (Martin, et al., 2014).

Examine your organisation's culture and climate

Our experience implementing both our CARE and TCI programme coincides with the child welfare research that indicates that effective and outcome-oriented children's services require non-routinised and individualised service decisions that are tailored to each child's developmental needs and best interests (Glisson & Hemmelgarn, 1998). Achieving this goal in the context of residential care typically entails efforts to create and to maintain positive organisational climates and cultures that facilitate the adoption of new innovations and evidence-based practices (Aarons & Sawitzky, 2006; Corrigan, et al., 2001). These positive organisational cultures and climates express qualities such as participatory decision-making, clinical and supervisory competence, staff learning and

development, reciprocal interpersonal interactions, self-reflection and openness. Some research in mental health, child welfare and medical settings has shown that positive organisational climates and staff job satisfaction are linked to positive child or patient outcomes (Glisson, 2002; Glisson, et al., 2006; Glisson & Hemmelgarn, 1998; Weisman & Nathanson, 1985).

Further, our experience shows that these environments provide accurate assessment of developmental and therapeutic needs of children, use appropriate developmental relationships to engage the child in activities, routines, and interactions that are purposeful and provide a safe place to practice, and finally, involve the family and child as partners in the 'change process'.

Strong leadership

Few innovations can be successfully implemented without strong and active leadership that can communicate the benefits and advantages of any evidence-based practice. Leaders that facilitate organisational congruency that serve the best interests of the children at all levels of the organisation have a greater chance of sustaining any innovation.

In addition to communicating their vision, successful leaders can manage the complexity of serving these children and their families. At the managerial level, the critical task of residential care is to create an extra-familial or out-of-home care environment that supports a therapeutic mission (Anglin, 2002). Recent research on the implementation of the CARE programme model has revealed that adapting to the complexity of a residential care setting and being able to interpret a series of principles and theoretical perspectives 'in the moment' requires, in most cases, a change of mindset on the part of the staff members Anglin (2012). Kegan's work on adult mindset development has proven very applicable to the process of implementing both the TCI and the CARE programme model within an agency context (Kegan, 1994; Kegan & Lahey, 2009). To achieve any kind of organisational transformation that leads to innovation, leadership needs to provide encouragement and developmental opportunities for staff members to move beyond a *socialised mindset* characterized by technical thinking to a *self-authoring mindset* that is more adaptive and creative. The highest order, which is optimal for leaders of complex organisations, is a *self-transforming mindset* within which managers and directors can be highly creative and offer sensitive support and guidance to workers at other levels of the agency (Kegan, 1994; Kegan & Lahey, 2009).

Develop communities of practice

Since high-quality residential child care has its fundamentals in team and group work, the roots of communities of practice should be no stranger to the field. Communities of practice share areas of expertise, interactions, learning and practice (Wenger, 2014). They have life spans, and if they produce visible, tangible results can become institutionalised. They, however, require the basic ingredients of human relationships such as trust, respect, reciprocity, and commitment, all qualities that are found in any therapeutic environment that facilitates both staff and children's developmental relationships.

In our experience, many therapeutic residential child care facilities that successfully implement evidence-based programmeming and innovation have a commitment to developing a community of practice built on collective learning and personal reflection. While the concept of communities of practice and their associated activities seems sophisticated, and their interactions structured and routinised, in reality they need not be either. Their activities may be common and ordinary such as documenting problems, seeking the experiences of others, coordinating actions to improve effectiveness, or inquiring whether colleagues have suggestions for solutions when confronted with a unique problem. They can also be internal or external to the organisation. Recently, virtual communities of practice have developed taking advantage of our capacity for global outreach, connectedness, and social networking. Whether real or virtual, communities of practice have emerged in child welfare settings on topics such as building and sustaining trauma-sensitive environments, supporting parents with high-needs children, designing effective information systems to help ensure quality services to children, and sharing training and training evaluation methodologies to improve therapeutic processes and outcomes.

Summary

Translational research has the potential to have a significant and positive impact on organisations and agencies that serve the best interests of high-risk children and their families. The field has an opportunity to integrate practitioner perspectives to enhance effective translation of knowledge, improve practice, and create learning organisations that can sustain innovation. To be congruent with any translational research model and to contribute to our field's knowledge base, our residential programme models and practices have to reflect more rigorous evaluation and research methods and standards to test the effectiveness of our theories of change and their impact on the lives of our children. Through the development of communities of practice, the field needs to employ multiple qualitative and quantitative methodologies that examine evidence-based programmes and their active ingredients in order to tailor their strategies to our child and family populations, measure their impact on our work culture and climate, and determine child safety and wellbeing improvements. The next five to ten years will witness more seamless integration of translational research methodologies into our programmes so that the child welfare organisations that use them will have access to more precise and useful evaluation tools to gauge their impact on families and children.

End Notes

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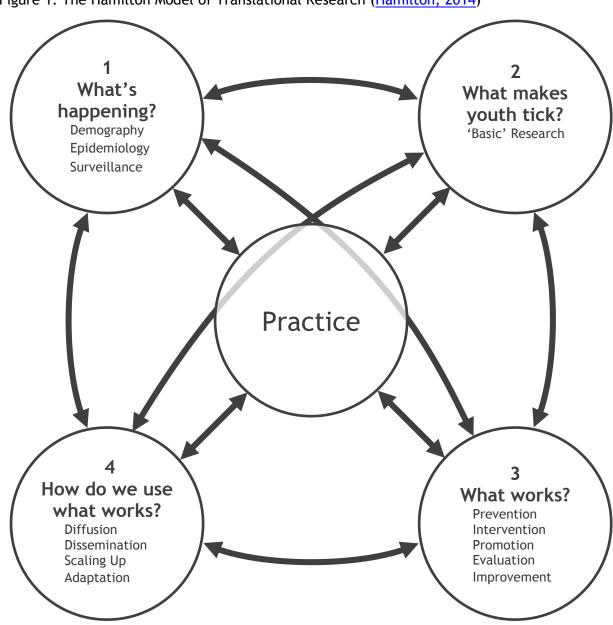
Figure 1: The Hamilton Model of Translational Research (Hamilton, 2014)