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The Dynamic Use of the Kawa Model: A Scoping Review

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The Dynamic Use of the Kawa Model: A Scoping Review

Abstract

Background: The Kawa model, a framework to guide culturally relevant occupational therapy, has gained recognition and become more widely used in practice. Research on the model thus far, while still relatively sparse, provides guidance for the model's use, including its strengths and facets that require further exploration to support its use and effectiveness in dynamic ways.

Method: A scoping review was completed to gather, organize, appraise, and synthesize the current research evidence on use of the model.

Results: Findings support the Kawa model's culturally flexible application and its capacity to garner client-centered qualitative information, as well as to build therapeutic relationships in a variety of settings. Challenges to the model's use include therapists' inexperience limiting effectiveness and the need for additional quantitative assessment measures to supplement the qualitative findings gathered during use of the Kawa. Limitations to this review include author preconceptions, homogeneity among the authors, and inclusion of non-peer-reviewed theses.

Conclusion: The Kawa model is an adaptable tool to examine and enhance well-being. It may be most effective when used by experienced therapists and in conjunction with other relevant tools. Further research is recommended to continue to evaluate its dynamic use.

Comments

The authors declare that they have no competing financial, professional, or personal interest that might have influenced the performance or presentation of the work described in this manuscript.

Keywords

collaboration, culturally responsive, Kawa model, occupational therapy

Credentials Display

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The Kawa (river) model is an occupation-based conceptual model that was created in 1999 by a team of Japanese occupational therapists, led by Dr. Michael Iwama. It is the first model in occupational therapy (OT) practice that was developed from clinical practice outside of the Western English-speaking world through qualitative research (Iwama, 2006; Iwama, 2018; Teoh & Iwama, 2015). *The Kawa Model: Culturally Relevant Occupational Therapy* textbook, by Iwama, was published in 2006. Eastern culture emphasizes the harmony between the person and environmental factors, which is believed to enhance health and well-being (Iwama, 2018; Iwama et al., 2009). Therefore, the model focuses heavily on the client's environmental contexts and how that impacts the flow of harmony in life, rather than mainly focusing on the individual client (Iwama, 2018; Iwama et al., 2009). This supports a culturally responsive approach to understanding the day-to-day realities of diverse clients (Iwama, 2006; Iwama, 2018; Iwama et al., 2009).

Kawa is the Japanese word for "river," a natural metaphor to portray life's energy and journey (Iwama, 2006). The river's constructs are inseparable: water (*mizu*) represents life flow and health, driftwood (*ryuboku*) represents personal assets and liabilities, rocks (*iwa*) represent life circumstances and problems, and the river walls (*torimaki*) represent physical and social environmental factors (Iwama et al., 2009). The flowing water can symbolize life and occupation, and without water flowing there can be no river, no life (Iwama, 2006). Space between obstructions (*sukima*) through which life flows are opportunities for expanding flow and well-being in accordance with the client's perspective and priorities (Iwama, 2006; Iwama et al., 2009). OT aims to create more space between obstructions and improve harmony between all the elements to enhance life flow (Iwama et al., 2009). Clinical reasoning is used to identify and use strengths and supports (driftwood and river walls), and incorporate remediation and/or adaptative techniques as indicated, to overcome challenges and barriers (rocks) to maximize occupational performance and overall well-being (Iwama, 2006; Teoh & Iwama, 2015). The Kawa model's use of metaphors may be easier for clients to understand and relate to their own lives, compared to some other practice models (Iwama, 2006). While the model continues to be developed, it is used in practice across six continents and is taught in over 500 OT programs around the world (Iwama, 2018).

The Kawa Model Made Easy manual, by Teoh and Iwama (2015), asserts that the Kawa model "can be used as a conceptual model of practice, frame of reference, assessment tool and modality" (p. 2). Recent research has explored the model's use in various ways and contexts. This scoping review aims to provide a comprehensive critical appraisal of the research to date about the model's use and explore the validity of its use in dynamic ways as a therapeutic tool. The intended audience is allied health professionals who are interested in learning more about this model and its strengths and challenges of use.

Method

The authors followed Arksey and O'Malley's (2005) framework for conducting a scoping study. The stages of this method are as follows: Stage 1: identifying the research question; Stage 2: identifying relevant studies; Stage 3: study selection; Stage 4: charting the data; and Stage 5: collating, summarizing, and reporting the results (Arksey & O'Malley, 2005). For this review, each article selected was also critically appraised by the authors using methods outlined by Law and MacDermid (2014) to strengthen the review and provide additional information regarding the levels of evidence and quality of the currently available literature.

The authors had previously conducted comprehensive literature searches of Kawa-model-related articles published from 2007 to 2017 before implementing their own studies of the model's use (Lape et

al., 2019; Lape & Scaife, 2017; Newbury & Lape, 2021; Ober & Lape, 2019). The search for this scoping review was extended to 2021 to include the most recent publications. Initial inclusion criteria were: research articles published in peer-reviewed journals that directly investigated the use of the Kawa model, full-text available, and published in English or translated to English available. Exemption for this review was sought and granted by the Institutional Review Board of Chatham University in Pittsburgh, PA.

Given that the state of research on the Kawa model is still in its relative infancy, a limited number of published articles met all of the initial inclusion criteria. Therefore, in the interest of comprehensiveness, the authors agreed to revise the initial criteria to include unpublished doctoral- and master's-level dissertations and theses that met all other inclusion criteria, such as available in full text. These were included in the thematic analysis and are discussed in the Results section. Informational articles and published practice reports about the use of the Kawa model, as well as qualitative scholarly studies that used the Kawa but did not examine it directly, were examined separately and included in the discussion, as they were deemed to be relevant to the body of literature but did not meet other inclusion criteria. Articles not available in full text in English or English via Google Translate were excluded. Articles that did not directly examine the use of the Kawa model and/or have findings about the use of the model were excluded. Search terms were "Kawa model" alone and in combination with "occupational therapy." Databases searched included Google Scholar, Academic Search Premier, CINAHL, Directory of Open Access Journals, SPORTDiscus, Ovid, and EBSCO Discovery Services for Chatham University and Alvernia University. Reference lists of the selected articles were mined to ensure a complete literature search.

Data Analysis

To improve trustworthiness, the first and second authors independently appraised the selected articles and completed qualitative thematic analysis following the general steps outlined by Braun and Clarke (2006). Each author identified key words and phrases, grouped similar words and phrases, and identified themes based on these groupings and the studies' findings. These two authors then met to discuss themes. During the discussion, small discrepancies of the wording were noted between the two analysts' identified themes, and the themes were further distilled and agreement was reached. No major discrepancies were noted. Themes were then reviewed and discussed with the third author who was also intimately familiar with the body of literature, and themes were agreed on by all three authors.

Results

The literature search produced over 500 results; however, only approximately 30 of those met the inclusion criteria. After exclusions were applied and inclusion criteria were updated, 10 research articles and three unpublished dissertations were selected to critically review for thematic analysis of the model's use (see Table 1 and Table 2). The articles were published in the following scholarly journals: *Annals of International Occupational Therapy*, *Journal of Occupational Therapy and Rehabilitation*, *Occupational Therapy International*, *Occupational Therapy in Mental Health*, *Advances in Rehabilitation*, *Internet Journal of Allied Health Sciences & Practice*, and *Open Journal of Occupational Therapy.* The research designs of the selected published articles were primarily qualitative with one quantitative (pretest-posttest design) and two studies using mixed methods, both with a pretest-posttest design (see Table 1). Therefore, three articles are ranked as Level III on the evidence hierarchy (Sackett et al., 1996). Two of the three selected dissertations were qualitative in design and one was mixed methods (see Table 2).

Table 1

Published Research Evidence Investigating the Kawa Model

Author(s), Year; Country	Research Design	Study's Purpose; *Number of Participants*
Aygün & Akel, 2018; Turkey	Qualitative Design	Investigate the positive and negative experiences of senior class OT students in using the Kawa model; (*N = 20*)
Carmody et al., 2007; Ireland	Qualitative, Grounded Theory, Case Study	Explore the effectiveness of the Kawa model to guide OT interventions with individuals with multiple sclerosis; (*N = 2*)
Gregg et al., 2015; USA; Case of combat stress in Afghanistan	Qualitative, Case Study	Propose implementation of the Kawa model to develop culturally sensitive OT interventions in the military context for individuals affected by combat and operational stress; (*case study*)
Janus, 2017; Poland	Qualitative, Case Study	Provide information on the Kawa model and its OT application in mental health; (*case study*)
Lape et al., 2019; USA	Quantitative, Pilot Study, Pretest-Posttest	Explore the use of the Kawa model for interprofessional health care team collaboration; (*N = 10*)
Lape & Scaife, 2017; USA	Qualitative, Exploratory Study	Explore potential uses of the Kawa model to promote team building and collaboration with rehabilitative professionals and to identify areas for future related research; (*N = 26*)
Newbury & Lape, 2021 USA	Mixed Methods, Pretest-Posttest	Explore if a Kawa model-based educational intervention could improve the current well-being of older adults related to aging in place; (*N = 7*)
Ober & Lape, 2019; USA	Mixed Methods, Pretest-Posttest	Investigate the impact of a team building intervention with the use of the Kawa model on acute care rehabilitation team collaboration; (*N = 8*)
Paxson et al., 2012; USA	Qualitative, Phenomenology	Gather information to understand occupational therapists' experiences using the Kawa model in a mental health setting; (*N = 2*)
Weis et al., 2019; USA	Qualitative, Phenomenology	To understand the experience of grieving parents from a Kawa model perspective and identify potential implications for OT; (*N = 11*)

Table 2

Reflection of Master's and Doctoral Work Investigating the Kawa Model

Author(s), Year; Country	Research Design	Study's Purpose; *Number of Participants*
Lim, 2018; United Kingdom	Doctoral Thesis, Longitudinal Qualitative, Phenomenology	To examine personal experiences of mental health recovery over a year using the Kawa model, as well as examine the value of the model as a visual tool to explore these personal journeys; (*N = 8*)
Majapuro, 2017; Sweden, subjects were from all over the world	Master's Thesis, Qualitative Study, Phenomenology	To explore occupational therapists' views regarding the use of the Kawa model in practice; (*N = 15*)
Owen, 2014; South Africa	Master's Dissertation, Descriptive Case Study (Phase 1: Quantitative, Phase 2: Qualitative)	To explore occupational therapists' use and perceptions of the Kawa model in practice; (*N = 12 for Phase 1, N = 7 for Phase 2*)

The thematic analysis of research investigating the Kawa model identified the following themes of use: culturally sensitive guide for OT practice, tool to develop a therapeutic partnership between the client and clinician, client-centered data collection tool, and tool to facilitate interprofessional collaboration. In all reviewed research, the Kawa model provided a unique platform for open communication and an opportunity to gain a deeper perspective. Common barriers to use were also identified as a theme for discussion.

Culturally Sensitive Guide for OT Practice

Study findings support the model's use as a culturally sensitive guide for OT practice (Aygün & Akel, 2018; Carmody et al., 2007; Gregg et al., 2015; Newbury & Lape, 2021; Owen, 2014), as intended by the developers of the model (Iwama et al., 2009). In a qualitative investigation by Aygün and Akel (2018), final-year OT students identified positive and negative features of the model after use with one client each. Their clients were adults with various diagnoses such as stroke, mallet finger, schizophrenia, and multiple sclerosis. The students' lack of experience implementing the model was listed as a limitation for the study, and a negative feature for new users. However, the students identified positive features as the use of the model to guide the intervention plan and the ability to analyze their clients in detail, which assists in determining client priorities (Aygün & Akel, 2018). The two-phase study by Owen (2014)

garnered occupational therapists' perceptions on the use of the model in practice; the study concluded that occupational therapists found the model adaptable and flexible in application, with experienced occupational therapists finding the model easier to apply than novices.

Carmody et al.'s (2007) small-scale qualitative study concluded that the Kawa model effectively guides the OT process as experienced by the study's participants, individuals with multiple sclerosis. The qualitative study by Gregg et al. (2015) found that the Kawa model guides occupational therapists to provide culturally responsive interventions to promote occupational performance and recovery efforts for military service members during wartime. Furthermore, the mixed method investigation by Newbury and Lape (2021) found the Kawa model effectively guided client-centered, individualized interventions to support aging in place and improve psychosocial well-being in a small sample of community-dwelling older adults.

Tool to Develop a Therapeutic Partnership Between the Client and Clinician

The model has also been successfully used as a tool to facilitate a therapeutic partnership between the client/service user and clinician/service provider (Carmody et al., 2007; Newbury & Lape, 2021; Majapuro, 2017; Paxson et al., 2012). Carmody et al. (2007) reported that the model enabled a therapeutic relationship and partnership. Per Newbury and Lape (2021), the Kawa model was effective for establishing client-therapist rapport and enhancing communication. Paxson et al. (2012) elicited occupational therapists' experiences using the Kawa model in a mental health setting. Study results indicate that the Kawa model's use of metaphors creates a culturally neutral platform for open dialogue, which enables a greater degree of expression and client-therapist collaboration, fostering rapport (Paxson et al., 2012). This study also found that despite the therapists' initial apprehension about the use of the Kawa model, it improved client-therapist interaction and energy, and may create more meaningful engagement in OT (Paxson et al., 2012). Majapuro (2017) explored occupational therapists' views on applying the Kawa model to practice and found the model to be effective for establishing therapeutic relationships and developing rapport.

Client-Centered Data Collection Tool

The third theme of the model's use is as a client-centered assessment and data collection tool to better understand the client's perspective and priorities (Janus, 2017; Gregg et al., 2015; Lim, 2018; Newbury & Lape, 2021; Weis et al., 2019). Janus (2017) promotes the Kawa model as an efficient option to garner data about the client's situation in a relatively short period. Gregg et al. (2015) found that the use of the river drawing and metaphor was useful for gathering data specific to the service user's unique experience and aided in the formation of an individualized plan of care. In their mixed methods investigation, Newbury and Lape (2021) found the Kawa model was useful in eliciting client perceptions, including the clients' views of the presence and impact of environmental barriers and supports. The Kawa river drawing activity was also used in their study as an effective pre- and post-intervention outcome measure (Newbury & Lape, 2021).

The model has also been used as a tool to gather in-depth data about participants' perceptions and experiences in qualitative research investigations (Lim, 2018; Weis et al., 2019). Lim's (2018) investigation of the personal experiences of users of mental health services found five themes related to recovery. Participants were noted to value the use of the Kawa model to understand their recovery and their active role in the recovery process. Participants agreed that the use of the visual river maps facilitated a clearer perspective of their unique recovery experiences (Lim, 2018).

Weis et al. (2019) explored the use of the Kawa model with parents grieving the loss of an adult child to a drug overdose. The study found that "Kawa drawings as a qualitative data source allowed the participants to share sensitive information and strong emotions more easily during the semi-structured interview" (p. 2). This study concluded that the Kawa model is an effective assessment tool to understand the barriers and experiences of this population and to design an environment and goals to overcome those barriers (Weis et al., 2019).

Tool to Facilitate Interprofessional Collaboration

Expanding beyond use in more traditional OT interventions, the model has been successfully used as a tool to facilitate interprofessional teambuilding and collaboration (Lape et al., 2019, Lape & Scaife, 2017; Ober & Lape, 2019). The exploratory study by Lape and Scaife (2017) identified four potential applications of the Kawa model related to teambuilding and collaboration with rehabilitative professionals. The study suggested the Kawa model may be used as a tool for teambuilding, to address performance issues, as an approach to conflict resolution, and to address workplace challenges (Lape & Scaife, 2017).

A follow up pilot study by Lape et al. (2019) investigated whether the Kawa model could serve as an effective collaboration tool for a diverse health care team in a skilled nursing facility. The participants included a sample of team members from rehabilitation, nursing, administration, social work, and activities personnel. After an interactive activity involving application of the model to a case study, all team members concluded that the Kawa model provides a common ground for interprofessional discussions, and 90% of the team strongly agreed that the model is an effective tool to increase interprofessional collaboration (Lape et al., 2019).

Ober and Lape (2019) completed a 5-week pretest-posttest study with a group of acute care rehabilitation team members consisting of occupational therapists, physical therapists, and a speech language pathologist to investigate the use of the Kawa model as a teambuilding intervention to improve team collaboration. The study concluded that the model provided a successful method for open team discussion and collaborative problem-solving, and ultimately cultivated team collaboration (Ober & Lape, 2019). Furthermore, Ober and Lape (2019) suggested the Kawa model may be an effective tool to increase awareness and appreciation of team members' diverse backgrounds and perspectives.

Unique Platform for Open Communication and Deeper Perspective

Regardless of how the model was used in the reviewed research, such as a guiding OT approach, a client-centered assessment measure, or a tool to facilitate collaboration, an underlying theme in all studies examined was that the Kawa model provides a unique platform for open communication and deeper perspective. The model's design aims to be culturally neutral while considering all factors that impact healthy life flow. This supports the model's use as a tool in adaptable ways. All literature reviewed recommended further studies to support and investigate the use of the Kawa model in diverse contexts.

Barriers to Use of the Model

While the use of the model is supported in various ways, barriers must be considered. Majapuro (2017) found the model to be effective for gaining the client's perspective and relevant information through the client's subjective report but felt additional tools were necessary to assess actual occupational performance. Majapuro suggested further development of the model or use in combination with other occupation-based models to guide the OT process.

Lack of experience with the model has been noted as a barrier for novice users and/or a potential limitation to some study results (Aygün & Akel, 2018; Carmody et al., 2007; Newbury & Lape, 2021;

Owen, 2014; Paxson, 2012). Owen (2014) reported that clinical use of the model is not simple, as the model requires abstract thought (for both client and clinician) and lacks structure in terms of interpretation. More experienced clinicians have reported positive experiences with the use of the model; however, therapists have also identified several factors that influence the use of the model, such as habits versus experience, clinical reasoning, practice context, and client characteristics (Owen, 2014). Janus (2017) also noted that a basic understanding of psychological principles, as well as conceptual knowledge of the Kawa model, are needed for effective use in practice.

Discussion

The current research evidence supports Teoh and Iwama's (2015) claim that the Kawa model can be used as a conceptual model to guide OT practice, an assessment tool, and a modality. The literature indicates that the Kawa model can serve as a dynamic data collection method, visual tool, and modality to improve perspective and therapeutic partnership. The research not only supports the model's use as a tool to improve effective communication and collaboration between clients and clinicians but among interprofessional team members as well.

Use of the Model in OT Practice

In practice, the Kawa model is designed to be a client-centered tool to use throughout the OT process to provide culturally responsive care. Its design facilitates a deeper understanding of the client's narrative, the creation of collaborative goals to address identified barriers to health and well-being, and the development of meaningful interventions while considering the client's context and values. It can also then be used as an outcome measure to determine if treatment improved the client's life flow.

Use in Mental Health Settings

The Kawa model's use as a data collection tool specifically in mental health settings is supported by the research of Janus (2017), Lim (2018), and Paxson et al. (2012). While not technically a mental health setting, Gregg et al.'s (2015) use of the Kawa model with military personnel in an active-duty combat setting incorporates many aspects of mental health and supports the use of the model in this complex setting. Several practice reports, while not peer-reviewed research, offer additional support for the use of the model as a tool in mental health practice to gain valuable insight into clients' unique situations and perspectives (Fieldhouse, 2008; Leadley, 2015; Richardson et al., 2010). Leadley's (2015) practice report discussed feedback from service users and multidisciplinary team members after a two-year trial implementation of a Kawa model-based OT assessment report template in a forensic mental health unit in New Zealand. Although definitive conclusions could not be made, overall feedback indicated that the model is occupation-focused, holistic, client-centered, and culturally responsive (Leadley, 2015). The service users felt their perspective was heard, and team members felt the template and the model's metaphors enabled them to view service users' difficulties in a new and improved way; however, the team also felt it was too broad and should include risk information (Leadley, 2015).

Richardson et al.'s (2010) practice report was based on the experiences of three occupational therapists that used the Kawa model in mental health practice and concluded that the model is a valuable tool that enables service users to share their lived experience and develop self-awareness through their interpretation of the river metaphor. The practice report by Fieldhouse (2008) also supported the Kawa model's suitability as a tool in mental health practice based on his encounters as a community mental health team clinician and as an educator. "By using the river metaphor to depict complex, dynamic relations between the self and environment, Kawa shows how occupational therapists can clinically reason

with these facets of modern community health practice" (Fieldhouse, 2008, p. 103). Fieldhouse encouraged therapists' model experimentation and critical reflection through use, but not to overlook their individual judgment.

Use in Other Practice Settings

The evidence examined in this scoping review was derived primarily from the use of the Kawa in community-based and mental health settings. The Kawa, while noted by Janus (2017) to be efficient in gathering data in a relatively short amount of time, is a more time-intensive modality and assessment tool than many simpler, less time-consuming quantitative measures currently used in practice in more traditional medically-based settings in the United States. The authors hypothesize that the limited use of Kawa with clients in more acute medical settings, such as acute care and inpatient rehabilitation facilities, may be because of significant time constraints on services provided in those settings, given the demands of productivity and limited acceptance by payors of less traditional outcome measures and modalities.

Use in Conjunction with Other Tools and Models

Though the Kawa model has been effectively used as a tool to understand the client's unique perspective and priorities (Janus, 2017; Newbury & Lape, 2021; Paxson et al., 2012), research suggests that therapists should consider selecting complementary assessments to gather relevant data to ensure a comprehensive evaluation. Teoh (2011) discussed a qualitative inquiry conducted with Malaysian adults with visual impairments, which compared the use of an interview based on the Kawa model with an interview based on the Canadian Occupational Performance Measure (COPM; a tool of the Canadian Model of Occupational Performance). The results indicated that each approach has strengths and limitations, and suggested complementary use of both frameworks together for a more overall holistic approach and consideration of clients' life perspectives. Furthermore, given the lack of quantifiable data gleaned from the model's use in isolation, research suggests that the model can be effective and beneficial especially when used in combination with other pertinent quantifiable outcome measures (Gregg et al., 2015; Majapuro, 2017; Newbury & Lape, 2021). Newbury and Lape (2021) found the Kawa model to be an effective qualitative outcome measure when used in conjunction with two additional quantitative measures of participants' psychosocial well-being (the outcome being investigated). While additional objective performance measures are recommended for a comprehensive evaluation, Iwama (2006) suggests that the Kawa river model exercise could provide observable functional performance information such as dexterity, cognition, sitting tolerance, etc., per anecdotal reports from diverse practice settings.

Iwama (2006) states that if the model fails to resonate with the client or occupational therapist, "it should be modified or placed aside in exchange for a more relevant and appropriate model" (p. 160). It is important to note that in American OT practice, occupational therapists should only use the Kawa model, as with any guiding model or frame of reference, in conjunction with the *Occupational Therapy Practice Framework* (*OTPF*; American Occupational Therapy Association [AOTA], 2020). The *OTPF* describes the domain and process of the OT profession and is designed to be used in harmony with professional knowledge, current relevant evidence, and clients' priorities (AOTA, 2020). Globally, occupational therapists should refer to their national occupational therapy association for guidance on practice guidelines or mandates.

Use of the Model in Qualitative Research Investigations

The Kawa model has been used as a framework to gather and analyze data about participants' perceptions and experiences in various qualitative (QL) research investigations. Weis et al. (2019) support the model's use as a data collection guide in QL studies, and several other scholarly research articles that

did not directly investigate use of the model itself, but used the model as a theoretical foundation and tool to guide QL data collection in their investigations (Ghani et al., 2016; Humbert et al., 2014; Nelson, 2007).

Humbert et al.'s (2014) researchers used the model as an in-depth phenomenological interview guide to facilitate open conversation in their study exploring women's recovery needs after leaving an abusive relationship. The researchers in the study by Ghani et al. (2016) also designed their interview guide based on the Kawa model to investigate the participant's life experience while caring for older family members with terminal illnesses. Nelson (2007) used the Kawa model as an alternative data-collection tool to provide Indigenous Australian participants a means to depict their life and views of what enabled or complicated their health and well-being. The author also emphasized the importance of "(moving) towards relationships with clients where the therapist is the 'learner' rather than the 'teller' and the practice is truly client-centred" (p. 252).

To further support the model's effective use to garner data about the client's perspective and experiences, several theses/dissertations also used the model as a QL data collection tool to explore and understand their participants' perspectives (Giazzoni-Fialko, 2011; Lim, 2018; MacLeod Schroeder, 2018). Doctoral work by MacLeod Schroeder (2018) used the Kawa model as a platform for data collection and analysis with in-depth interviews from five practicing occupational therapists to explore the characteristics of occupational therapist identity and developed a 4-stage model of professional identity formation, represented by the Kawa model to clarify the relationship between elements. Master's work by Giazzoni-Fialko (2011) incorporated a modified version of the Kawa model to interview five parents of children with autism spectrum disorders (ASD) to explore meaningful interventions for children with ASD, and derived four integrated themes, using the model as a framework, to represent life experiences of the families.

Use of the Model as a Therapeutic Tool in Various Contexts

Research evidence supports the use of the model outside of traditional OT practice, such as to improve team interprofessional collaboration (Lape et al., 2019, Lape & Scaife, 2017; Ober & Lape, 2019). Benefits of effective team collaboration include improved quality of client-centered care, patient satisfaction, and patient outcomes (Strasser et al., 2008; Zwarenstein et al., 2009). Teamwork and collaboration are also significantly linked to the team member's job satisfaction (Chang et al., 2009). Ober and Lape (2019) reported the Kawa model provided a successful, culturally neutral method for the team to visualize, and openly communicate about how to maximize their team's flow. It also provided a platform to enhance an understanding of, and respect for, differing team members' perspectives (Ober & Lape, 2019). The team members in the study by Lape and Scaife (2017) stated that the use of the Kawa model encourages a "non-threatening environment" (p. 4), and they felt it would be beneficial to use not only with other departments in the facility but also with clients, who would likely be more willing to openly discuss their current situations as well.

Unique Value of the Metaphor

One of the primary features that distinguishes the Kawa model from other models of practice is its foundational use of the river metaphor as a communication tool and means for enhancing a holistic understanding between participating parties (e.g., client/practitioner or interprofessional collaboration). Newbury and Lape (2021) note that "the river metaphor seemed to serve as an especially useful projection; in describing obstacles in the more neutral terms of the metaphor, participants may have been more willing to offer details than they would have been in a simple question-and-answer interview" (p. 8–9). Similarly, Lim (2018), whose participants each completed a series of five Kawa river maps over the course of a year,

reported that these mental health service users agreed that "relating to the concept of a river representing their lives helped them to better comprehend their own recovery experiences and . . . working with the visual maps generated a clearer perspective of their recovery experience promoting new insights" (p. 178–179). Iwama (2006) reports that "because the Kawa metaphor is easy to comprehend and familiarity with its use by both therapist and client develops with frequency, occupational therapists will discover their own ways to use it" (p. 167), and notes that the model should be altered as relevant for the context.

Gregg et al.'s (2015) application of the Kawa model with an active-duty soldier represents how this metaphoric model can be used in varied and complex settings and with a diverse clientele. There are also relevant practice reports that explore the model's use in other innovative ways. Dillon et al.'s (2020) descriptive article discussed a five-module life skills program in a county jail, conceptually grounded in the tenets of the Model of Human Occupation and the Kawa model, designed to facilitate skill development for successful community reintegration. A professional presentation by Dellow and Skeels (2016) discussed a Kawa model workshop developed for service users of an adult community mental health team to encourage communication and enhance self-understanding of their difficulties, as well as set goals. Woods et al. (2017) discussed in their reflective presentation how the Kawa model was used by a return-to-practice occupational therapist and their clinical supervisor to identify areas that were impacting the success of returning to OT practice.

Conversely, using the metaphor in such a way is not without pitfalls. In a scholarly critique of the model, Wada (2011) offered concerns that the metaphoric model does not offer consistency with the portrayal of occupation and how it relates to the inner self, which is overshadowed by a focus on the interactional self. This may limit therapists' ability to consistently interpret the model's data for use as an outcome measure. Per Wada, the metaphor also fails to address the nuanced concept of belonging in social contexts and how occupation and the inner self are impacted by belonging.

Use for Holistic Self-Examination

As reflective professionals, it's important to find harmony in ourselves to be able to support and facilitate harmony, joy, and excellence in others. As discussed above, Lim (2018) specifically notes the usefulness of the metaphoric model for self-reflection. Participants acknowledged that the river concept and the active process of creating the visual maps facilitated clarity and self-understanding in their recovery experience (Lim, 2018). In addition, Tripathi and Middleton (2018) suggested the Kawa model's use as a tool for continuing professional development through holistic self-assessment.

Considering the tool's use for self-reflection, a Kawa app was developed by Augusta University's OT faculty members, including Dr. Michael Iwama, which used "the metaphor of a river to express your life and how it is flowing" (Augusta University, 2018, para. 2). Anecdotally, the first author's school-aged daughter enjoyed using the app and sharing her river's meaning. For example, she labeled a piece of driftwood (personal factor) as "flexibility," which could easily be interpreted as the ability to compromise; however, in discussing her river, she noted that she intended it to mean physically flexible to be successful in dance, which was one of her priorities. This reinforces the value of a platform to understand and explore individual meanings and perspectives. The app was no longer available for download at the time of this review.

Study Limitations

The authors chose to include several unpublished theses in the review. While these were critically appraised by the authors and judged to be sound research, they have not undergone a formal peer-review process; this may have lessened the quality of the body of evidence examined. Articles that were not

published in or translatable to English were not included in the review. In addition, there are numerous conference presentations about the use of the Kawa that were not included; these may have provided valuable information but did not meet the criteria for a rigorous review. The authors have worked in varied practice settings and with various diverse populations; however, the authors themselves represent a relatively homogeneous group with regard to race, ethnicity, citizenship (all American, practicing in the United States), and socioeconomic status. Further insights may have been gained from a more diverse group of reviewers. Finally, while every effort was taken to approach the review objectively, and familiarity with the use of the model was useful in assessing the literature, each author has had positive experiences with the use of the Kawa model, and so confirmation bias cannot be entirely ruled out.

Recommendations

As noted above, the literature, while of good quality, is relatively sparse and mostly small-scale qualitative studies. Further, larger scale qualitative and quantitative research investigations exploring the model's use in various ways and contexts is recommended. Continued use of the model as a tool to garner QL data is recommended, and the Kawa may be particularly suited for use in QL research investigations to explore and understand the perspectives of those in marginalized populations. The authors agree with Iwama's (2020) call for more studies that investigate the Kawa model's use and effectiveness in diverse practice settings from around the world.

Continued development of the model to allow for more formal use in modified ways is also recommended. For example, a formal interview guide using the metaphor without the drawing component may be more feasible in time-limited settings such as acute care. Alternate mediums could be further explored, such as digital and electronic, modeling clay, or prefabricated paper or plastic components of the elements (driftwood, rocks, etc.) that can be added or removed from a river board. Leadley (2015) also listed some unanswered questions from their trial that could be further investigated, including the implications of using metaphors other than a river and the best way to explain the model to service users.

The model's use as a therapeutic tool in nontraditional contexts and varied settings should also be studied further. For example, Lape and Scaife (2017) suggested exploring use of the model to address performance issues and to address workplace challenges. Use of the Kawa as a culturally neutral communication tool between a clinical instructor and a Level II OT fieldwork student was informally trialed by the first author, and a much deeper understanding was gained of the student's unique narrative, personal strengths and barriers, and professional objectives. The authors posit that the use of the Kawa with OT students may aid them in developing scholarly and professional goals and navigating the challenges of academia and entering the health care field. Finally, it is strongly recommended that all non-published investigators submit their important work for scholarly publication to effectively disseminate the model's dynamic use among stakeholders.

Conclusion

The current body of work illustrates that the Kawa model is much more than a conceptional model of OT practice. Research supports its adaptable use in practice beyond only a framework, to a client-centered interview guide, assessment tool, intervention activity, and outcome measure. However, in OT practice, Kawa should be used in conjunction with other relevant frameworks and tools to ensure comprehensive service. Also, novice users should explore training or mentorship to gain confidence for clinical use.

The use of the Kawa model is not restricted to OT practice and can be modified in various ways to promote open communication and collaboration. To enhance overall well-being, it is essential to

explore effective ways to understand diverse perspectives and circumstances outside of our own in any context. Using the Kawa river metaphor, while considering its inseparable features, provides a culturally sensitive opportunity to truly see what is meaningful and valued in the daily lives of others. Only when we welcome, understand, and respect those perspectives can we work together toward harmony. The reviewed research supports the Kawa model's use as a dynamic tool to facilitate effective dialogue and deeper perspective; however, more rigorous research directly investigating use of the model is recommended.

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