to the net benefits. Given the significant challenges faced in the first year after childbirth, having substantial social and emotional support from society, family and friends is essential to support the health and well-being of postpartum women and people. Postpartum sleep is exceptionally difficult, especially for those whose infants wake frequently and/or have short sleep windows. Prioritising maternal sleep and supporting opportunities to increase engagement in physical activity are recommended, when possible, as these can play an important role in supporting higher quality sleep, thereby reducing the risk of postpartum depression.

In adults, there is a strong dose–response relationship between sedentary behaviour and cardiovascular disease, cardiovascular mortality, type 2 diabetes, cancer and cancer mortality.[8] It is anticipated that postpartum women and people would experience health benefits similar to those of the general population, but to date there has been limited evidence addressing these relationships. However, there is a growing body of literature linking sedentary behaviour to persistent lumbopelvic pain,[36] worse pelvic floor support[37] and postpartum weight retention.[38] Given the limited available literature, the Guideline Consensus Panel followed the current recommendations for Canadian adults and has identified postpartum sedentary behaviour as a key area for future research.[8]

DISCUSSION

Considerations for implementation

The following guidance is based on the expert opinion of the Guideline Consensus Panel and provides best practice recommendations for physical activity, sedentary behaviour and sleep throughout the first year post partum. The postpartum period may be fraught with personal, environmental and societal barriers that can impact readiness to begin or return to physical activity. Postpartum women and people are encouraged to speak to their support network, including family, friends and healthcare provider(s), about their perceived barriers. Healthcare providers must consider the impact these barriers may have on implementing the Guideline during this period. Encouraging an individualised progression towards meeting these recommendations, and recognising the realities and difficulties of postpartum life are necessary. While meeting all of these recommendations at any given time may not be possible, even small steps towards achieving them will promote physical and mental health benefits.

It is generally accepted that participating in physical activity after childbirth requires a gradual, stepwise progression that should be tailored based on the time required to heal from pregnancy and childbirth, the person's physical symptoms, functional milestones reached and personal circumstances. Although our systematic review and meta-analyses were not able to provide distinct recommendations following a caesarean versus vaginal delivery, a recent study has found that early ambulation following caesarean section delivery was associated with reduced postoperative complications.[39] Thus, engaging in unstructured, light-intensity movement as tolerated soon after birth is recommended.

Healing and recovery will be impacted by the type of delivery, the presence of complications before and after pregnancy, as well as overall well-being. Some level of deconditioning post partum should be expected, even in those who continued to participate in MVPA throughout pregnancy. Initiating postpartum physical activity participation, including pelvic floor and gentle abdominal muscle training, as well as light-intensity physical activity, including walking, is encouraged to begin as soon as the postpartum woman or person has the capacity. The timeline to participate in MVPA will vary significantly, and an individualised, symptom-based, gradual progression is recommended.[30 32] Screening for pelvic floor dysfunction post partum is essential, with referral to a pelvic health specialist as needed.

Lactation is a highly energy-consuming process requiring 450–500 kcal/day.[40] While there have been long-standing concerns about combining physical activity and lactation, evidence from our systematic review did not identify an adverse impact on breastmilk quality or quantity or infant growth.[14] Adequate nutrition and hydration is needed to maintain lactation, as insufficient caloric intake can lead to low energy availability, which can cause amenorrhoea, poor recovery, decreased bone health, sleep disturbance and fatigue.[41] Breastfeeding has also been found to be a barrier to exercise in the postpartum period.[42] During lactation, the breasts will rapidly change size, and a bra with good support to minimise mobility during exercise is required.[43] While avoiding a tight-fitting or binding bra is recommended to ensure that breastmilk supply is not compromised, breastfeeding or pumping milk is encouraged before exercise to reduce breast weight and mobility, making exercise more comfortable.

Every person's postpartum journey is unique, and their biopsychosocial health and well-being will impact their timeline for recovery and readiness for physical activity. However, there are numerous barriers to postpartum MVPA participation that can be addressed to increase participation. A recent Delphi recommended assessing readiness for MVPA and identified key barriers to MVPA, including screening for mental health symptoms, musculoskeletal pain, wound healing, REDs, poor sleep, fear of movement (including diastasis rectus abdominus), lactation status, social/emotional support and eating disorders.[18] Previous studies have suggested that fear of movement or injury decreases the likelihood of returning to MVPA[44]; thus, assessing kinesiophobia is essential. Providing a supportive and flexible environment to address the barriers postpartum women and people face is critical.

Sleep is essential to health, yet the postpartum period is often characterised by short and fragmented sleep. While some level of sleep deprivation is unavoidable and part of being a new parent, the demands of around-the-clock parenting can take a toll on postpartum recovery and mental and physical health. The sleep recommendations in this Guideline can be difficult to achieve without substantial support from family, friends and society. Prioritising sleep and taking steps towards healthy sleep hygiene practices (eg, regular exercise; sleeping in a cool, quiet, dark environment; using behavioural strategies to improve sleep) can enhance overall sleep quality. Encouraging small steps to improve sleep may have important implications for overall health.

Research gaps and surveillance recommendations

Future research will need to address the identified gaps in the literature (see Box 3) to provide detailed recommendations on different modalities and intensities of physical activity (eg, group vs individual-based activity, resistance training, yoga, light-intensity to vigorous-intensity physical activity, occupational vs recreational activity), and develop and validate evidence-based individualised progressions for beginning or returning to physical activity, as well as specific recommendations on the type and timing of activities