UK English, NLM style:

**Interaction between Postural Dysfunction and Maxillomandibular Dysmorphism: a Systematic Review**

Maxillomandibular dysmorphism (MMD) is an incorrect jaw position that causes malocclusion and associated symptoms, including a variety of oral function disorders such as masticatory disorder, mouth breathing, temporomandibular joint disorders, asymmetry, and lingual dysfunction (D’Onofrio 2019). Most cases of MMD result from a facial skeleton growth disorder. The prevalence of dental malocclusion is estimated to be between 14% and 23% of the general population (Burgersdijk et al. 1991). The majority of malocclusions are managed with orthodontic treatment, but around 2% of cases will eventually require combined orthodontic treatment and orthognathic surgery to address the MMD causing the malocclusion (Proffit, Fields, and Moray 1998).

Postural dysfunction is the inability to maintain, achieve or restore a state of balance during any posture or activity (Pollock et al. 2016). It is associated with an increased risk of degenerative disk disease (Manns et al. 1996) and back pain (Korovessis, Stamatakis, and Baikousis 1999) and a greater risk of falling in older adults (Kado et al. 1999).

To stand and maintain an upright position, the human spine comprises successive opposing curves to keep the head and the pelvis vertically aligned (Amabile, Le Huec, and Skalli 2018). In cases of spine misalignment, such as lumbar hyperlordosis or thoracic hyperkyphosis, a compensatory mechanism progressively appears as the imbalance of the spine increases (Le Huec et al. 2011). When this compensatory mechanism is exceeded, complications may occur. For example, thoracic hyperkyphosis is related to higher morbidity and mortality rates in the older population because it increases the risk of falls related to body biomechanics alteration (Kado et al. 1999). Indeed, Sinaki et al. (2005) demonstrated that women with osteoporosis and hyperkyphosis had weaker back extensor strength, weaker lower extremity strength, slower gait, poorer balance, and greater body sway, resulting in a propensity to fall. Neurological conditions, such as peripheral neuropathy (Mustapa et al. 2016), Parkinson’s disease (Schindlbeck et al. 2018) or stroke (Verheyden et al. 2014), can also play a role in the postural dysfunction resulting from spine misalignment.

There are a number of arguments in favour of a relationship between MMD and postural dysfunction in children. However, it is unclear whether the postural disorder is a consequence or a cause of the MMD, and muscular dysfunction seems to play a role in this association. These hypotheses are supported by the anatomical connections between the mandible and the cervical spine and the high prevalence of MMD in children with scoliosis and functional asymmetry of the trunk muscles (Saccucci et al. 2011). Ventilation dysfunction, frequently encountered in MMD, could also be involved in this relationship – mouth breathing induces cervical misalignment characterized by a forward head posture with extension of the cervical spine, particularly in children exhibiting class II MMD (D’Attilio et al. 2005; Smailiene et al. 2017) or retrusion of the jaws (Beni Solow and Siersbaek-Nielsen 1992).

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Kado DM, Browner WS, Palermo L, Nevitt MC, Genant HK, Cummings SR. Vertebral fractures and mortality in older women: a prospective study. Study of Osteoporotic Fractures Research Group. Arch Intern Med. 1999 Jun 14;159(11):1215-20.

US English, Chicago style (17th edition):

The Cultural Impact of the Digitization of Text

So instead of wondering if books are dead, perhaps we should be asking: were they ever more alive?

Wood

The soaring popularity of the paperback book in the early twentieth century was like all revolutions—welcomed by some and viewed with despair by others. Social critic Harvey Swados said at the time that they would do little but “debase farther the popular taste” (Swados 2013, 1). Despite such skepticism, paperbacks changed the literary landscape for good.

With the appearance of the pocket-sized softcover book, reading became “an activity that travels everywhere” (Thompson 2013, 1). It became possible to carry your reading material around with you, and the business model—making books available in supermarkets and pharmacies—catered to the book-hungry masses. Selling for only twenty-five cents—significantly less than the $2.50 hardcovers of the time (Thompson 2013)—paperbacks made book-length texts more accessible than ever before.

Fast-forward seventy-five years, and we are in the midst of a brand new revolution in mobility and access, with even more far-reaching consequences. Technology has altered the ways in which we interact with cultural products beyond recognition. For example, in the past, when you heard a song you liked, you could spend years fruitlessly searching for it; now, you can just open the SoundHound app on your phone, know the name of the artist before the next refrain starts, and own the album on iTunes before the song has even finished.

Connectivity, coupled with innovative programs like the Google Art Project,[[1]](#footnote-1) provides us with a degree of access to high culture we could have never imagined before; we can study the brush strokes in Whistler’s Mother without ever having seen the actual painting.

Books are no different. Provided you have access to the necessary technology, the literary corpus of the world is at your fingertips. Texts are now, more than ever, immediate: immediately available and immediately accessible because they are with us all the time. We carry around literary libraries, years’ worth of newspaper subscriptions, and digital shelves full of back-issue magazines on palm-sized devices whose computing power exceeds that of Voyager 1—the first artificial object to reach interstellar space (Dewey 2013). Because we have more choices available to us more cheaply and quickly than ever before, we arguably read more than we ever have, but we do so in radically different ways. “On-demand everything” is the burgeoning modus operandi of the affluent world.

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1. The Google Cultural Institute's Art Project provides unprecedented public access to invaluable artwork collections held in partner museums and archives worldwide (Google Cultural Institute 2013). Its zoom function provides a level of detail even greater than that which could be seen standing in front of the painting in a gallery. [↑](#footnote-ref-1)