Declaration

I Hilde Doris Hendrik declare that this research report is submitted for the MScMed (Bioethics & Health Law) course is my own unaided work except where I have explicitly indicated otherwise. I have followed the required conventions in referencing the thoughts and ideas of others. It is being submitted for the degree of MScMed (Bioethics and Health Law) in the University of Witwatersrand, Johannesburg. It has not been submitted before any degree of examination at this or any other university.

Signature  

Hilde

1 day of August, 2014
Dedication

This thesis is dedicated to Professor CEE Noffke and Professor EJ Raubenheimer.

For their endless support and encouragement.
Abstract:

For centuries, dental practitioners have used radiographs as their primary diagnostic tools. (Lorenzoni et al., 2012: 1-10). Cone-beam Computed Tomography (CBCT) was introduced to the dental profession in early 2000’s and represented a convenient alternative to the higher radiation dose Medical Computed Tomography (CT) to be used as a dental radiological diagnostic tool (Friedland, 2009: 58). The dental profession accepted this new technology, however the criteria for using CBCT technology is far more complex than that for conventional radiographs (Noffke et al., 2011: 262-266). According to Noffke et al., this complexity is in terms of radiation dosage requirements, clinical indications, and radiological interpretation of the images (2011:263). Dental practitioners are currently faced with a predicament; guiding principles and safety precautions that were once applicable to conventional radiographic imaging techniques are no longer adequate or sufficient in regards this new technology (Holroyd & Gulson, 2009: 1-10). Currently in South Africa, limited guidance and training is available for the dental practitioner regarding CBCT (Noffke et al., 2011: 263). Dental practitioners, who may not have received adequate training regarding the safe and effective use of this innovative technology, are presently making use of this diagnostic modality in South Africa (op cit). The only training currently available locally is limited to the procedural aspects of CBCT technology offered by the businesses which market the equipment (op cit). This research report explores the multitude of ethical and legal issues concerning the use of CBCT technology by South African dental practitioners as a diagnostic tool.
Acknowledgements

This thesis would not have been possible without the support of Prof. CEE. Noffke and Prof. EJ. Raubenheimer. Thank you for your guidance and support and thank you for believing in me. I am so grateful to have been able to learn from the very best.

Many thanks to my supervisor, Dr.NM.Tsotsi who read my numerous revisions and helped me along the way and to Dr.D. Mladenova for encouraging me to enrol for this study.

A special feeling of gratitude to my loving parents, Ana and Coloman Hendrik, whose support and encouragement have guided me through the years. Thank you for allowing me to follow my dreams.

And finally, thanks to my husband, Garry Miniggio who has been with me every step of the way, always offering support and love and to my two daughters, Diana and Gabriella who have brought so much joy to my life.
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Waiver letter from university of Witwatersrand Human Research Ethics Committee (medical)