

Health and Well-being in Early Childhood

Janet Rose • Louise Gilbert • Val Richards



Health and Well-being in Early Childhood

Janet Rose • Louise Gilbert • Val Richards



Los Angeles | London | New Delhi
Singapore | Washington DC



Los Angeles | London | New Delhi
Singapore | Washington DC

SAGE Publications Ltd

1 Oliver's Yard

55 City Road

London EC1Y 1SP

SAGE Publications Inc.

2455 Teller Road

Thousand Oaks, California 91320

SAGE Publications India Pvt Ltd

B 1/I 1 Mohan Cooperative Industrial Area

Mathura Road

New Delhi 110 044

SAGE Publications Asia-Pacific Pte Ltd

3 Church Street

#10-04 Samsung Hub

Singapore 049483

Editor: Jude Bowen

Editorial assistant: George Knowles

Production editor: Tom Bedford

Copyeditor: Peter Williams

Proofreader: Caroline Stock

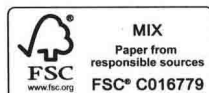
Indexer: Grace Rose

Marketing manager: Dilhara Attygalle

Cover design: Wendy Scott

Typeset by: C&M Digital (P) Ltd, Chennai, India

Printed in India at Replika Press Pvt Ltd



© Janet Rose, Louise Gilbert and Val Richards 2016

First published 2016

Apart from any fair dealing for the purposes of research or private study, or criticism or review, as permitted under the Copyright, Designs and Patents Act, 1988, this publication may be reproduced, stored or transmitted in any form, or by any means, only with the prior permission in writing of the publishers, or in the case of reprographic reproduction, in accordance with the terms of licences issued by the Copyright Licensing Agency. Enquiries concerning reproduction outside those terms should be sent to the publishers.

Library of Congress Control Number: 2015935507

British Library Cataloguing in Publication data

A catalogue record for this book is available from the British Library

ISBN 978-1-4462-8730-9

ISBN 978-1-4462-8762-0 (pbk)

At SAGE we take sustainability seriously. Most of our products are printed in the UK using FSC papers and boards. When we print overseas we ensure sustainable papers are used as measured by the Egmont grading system. We undertake an annual audit to monitor our sustainability.

Health and Well-being in Early Childhood



SAGE was founded in 1965 by Sara Miller McCune to support the dissemination of usable knowledge by publishing innovative and high-quality research and teaching content. Today, we publish more than 850 journals, including those of more than 300 learned societies, more than 800 new books per year, and a growing range of library products including archives, data, case studies, reports, and video. SAGE remains majority-owned by our founder, and after Sara's lifetime will become owned by a charitable trust that secures our continued independence.

Los Angeles | London | New Delhi | Singapore | Washington DC

ACKNOWLEDGEMENTS

We would like to thank all the practitioners and colleagues for their contributions to this book and to all the children whose stories we tell in our case studies. In particular, we'd like to thank Julia Butler, Tracey Barnett, Alison Cliffe, Licette Gus, Heidi Limbert, Linda Plowden, Rosie Pritchard, Angela Spencer and Sara Willis. In addition, we would like to thank Christopher Walker for his illustrations and Felicia Wood, Kate Cairns and Tracey Lewarne for their helpful comments during the writing of this book.

We would also like to extend our thanks to Jude Bowen, Amy Jarrold and George Knowles of Sage for their guidance and support.

ABOUT THE AUTHORS

Dr Janet Rose is currently a Principal Lecturer and Programme Leader in Early Education at Bath Spa University. A former teacher, she has also worked in a range of early years settings, worked with children 'at risk' and ran sensory integration workshops for 0-3s for many years both in England and abroad. She has worked closely with the National College of Teaching and Learning and led training for a number of Local Authorities and professional organisations around the country. She is the author of various publications, including a co-authored book on *The Role of the Adult in Early Years Settings*. She is currently developing two research projects (Attachment Aware Schools and Emotion Coaching) which focus on supporting children's behaviour and well-being.

Louise Gilbert's background is in health and education having trained as a teacher and a nurse, and worked in health promotion before becoming a university Senior Lecturer in childhood with a special interest in child development and health. She has numerous publications with a focus on sustainable health and well-being. Louise has also contributed to the development of professional training programmes, delivered keynote speeches and run workshops for multidisciplinary and specialist groups working with children. With Janet Rose, she designed and delivered the first UK Emotion Coaching research project, which applied an interpersonal neurobiological approach to support sustainable, community-wide, cross-disciplinary promotion of children's well-being and resilience. She is currently writing her doctoral thesis on the research findings.

Val Richards is a Senior Lecturer at Bath Spa University. She is a member of the Education Studies department and currently leads and teaches modules on Health, Education and Behaviour, Adolescent Development, and Learning. Her main discipline is psychology, specialising in developmental psychology, adolescence, health psychology and teaching and

learning. She has also taught Food and Nutrition and Childhood Studies at both Higher Education and secondary school level and was subject leader for Studies of Childhood at Bath Spa University. Her research has focused on gender-related behaviour and attitudes and, more recently, issues concerning transitions from primary to secondary school. She has recently co-edited a book on Bridging the Transition from Primary to Secondary School.

CONTENTS

<i>List of figures and tables</i>	vii
<i>Acknowledgements</i>	ix
<i>About the authors</i>	xi
 Introduction	 1
1 Brain development	11
2 Brain processes in health and well-being	24
3 The stress response system	33
4 Nutrition in health and well-being	47
5 Attachments and early relationships	56
6 Emotional development and regulation	71
7 Active Learning	83
8 Emotion Coaching	97
9 Resilience and Building Learning Power	111
10 Economic and social factors affecting health and well-being	123
11 Early intervention in health and well-being	134
12 Conclusion: sustainable health and well-being	149
 <i>References</i>	 159
<i>Index</i>	177

LIST OF FIGURES AND TABLES

Figures

1.1	Areas of the brain	14
1.2	Hand model of the brain	15
1.3	The limbic system	16
1.4	Lobes of the cortex	18
1.5	A typical neuron	20
3.1	Vagal tone: maintaining a balance	42
9.1	BLP display of animal symbolisation for Learning Power	116

Tables

3.1	Maintaining homeostasis: our react, response and return mechanism	39
4.1	Table of nutrients	49
4.2	Learning through food	54
8.1	Emotion Coaching	109
9.1	Features of a resilient child	112
9.2	Dimensions of learning	118
9.3	Characteristics of effective learning	119
10.1	Biological, environmental and social dynamic factors that affect children's health and well-being	130

INTRODUCTION

The significance of young children's health and well-being is well established and increasingly on the agenda of government departments and agencies worldwide. This worldwide concern for, and understanding of, childhood well-being has increased over the past decade (UNICEF, 2013a). National success is no longer considered to be exclusively defined by traditional economic indicators such as Gross Domestic Product, but should also assess societal progress by measuring well-being (Stiglitz et al., 2010). The United Nations Convention on the Rights of the Child recognises a child's right to survive and thrive, to learn and grow, to have their voices heard, and to reach their full potential. This includes addressing their health and well-being, an issue that continues to permeate not just the non-Western world, but also shows signs of regressing in the Western world (UNCRC, 1989). A recent UNICEF (2014a) report calls for more information regarding the improvement of children's health and well-being to be made available.

What is health and well-being?

Defining health and well-being is challenging given that it may mean different things to different people in different socio-cultural contexts. It might be viewed objectively (such as via health status or household income) or subjectively (via personal perceptions of quality of life) (Statham and Chase, 2010). When considering definitions of health, we might only view health as relating to *physical* health but this does not

reflect the growing evidence of how *emotional* health can affect our physical health. For example, it has been shown that mental illness and stress affect the immune system and reduce life expectancy (NIMH, 2013). Similarly, we might enjoy physical health but still not have life satisfaction or a sense of happiness due to other needs not being met, such as financial security. Therefore, being healthy includes our *mental* health and well-being. This was affirmed by the World Health Organisation back in 1948 who defined health as a 'state of complete physical, mental and social well-being' (WHO, 1948). Later, this definition was amended to accommodate the realities of achieving this objective (such as personal and social capabilities) and drew attention to the processes involved in promoting health (WHO, 1984).

When we look for definitions of well-being we can see further complexity in attempting a definition. For example, Pollard and Lee's (2002) review of well-being identifies five different domains for well-being – physical, psychological, cognitive, social and economic. In England, the National Institute for Health and Care Excellence (NICE, 2012) separates well-being into three different categories – emotional, psychological and social – and identifies a wide range of factors that ought to be considered. These aspects address factors such as being happy and confident and having good relationships with others to managing emotions and being resilient.

In relation to the early years, Laevers (1994) has characterised well-being in children as reflecting factors such as openness and receptivity, self-confidence and self-esteem, vitality, enjoyment, relaxation and inner peace and self-assurance. Laevers equates higher levels of well-being (in other words, children who display high levels of these signals) with having an increased capacity to learn and being more deeply engaged, motivated and interested in learning. This might entail being able to persist and engage with more complex and creative aspects of learning. Roberts (2010) has also created a holistic framework of well-being for early years practice which centres around having a sense of agency and a sense of belonging, recognising the determining factor played by communication and active interaction in achieving well-being, and how all this rests on a bedrock of physical well-being.

In many respects the terms health and well-being can be used interchangeably (Walker and John, 2012); for example, emotional health might also be considered the same as emotional well-being, or at least that one leads to the other. In this book, health and well-being is used as a single term *health and well-being*. Within this term, it is acknowledged that:

- they are dynamic and multi-faceted concepts;
- they involve physical, emotional and mental manifestations;
- they are processes not just products;
- that one invariably affects the other.

A *multi-dimensional perspective* is therefore needed in order to understand the meaning of health and well-being and how best to promote both. This book draws on interdisciplinary frameworks to explore what is involved in supporting young children's health and well-being – a *biopsychosocial* model, a *psychoneurobiological* model and an *ecological systems* model, all of which provide us with an evidence-base and a more robust insight into health and well-being.

The biopsychosocial model of human development

For many years, developmental psychology has tended to dominate our understanding of how children develop. However, increased research and technological advances have introduced different ways of thinking about how different disciplines within the natural and social sciences need to work together to produce more holistic perspectives on how to support children's development. This is particularly true in relation to health and well-being as new discoveries reveal how everything affects everything else at multiple levels and in varying ways (Rutten et al., 2013). As our knowledge of the physiological, psychological, sociological and neurobiological components of childhood increases, traditional boundaries between different disciplines are breaking down. It is now increasingly accepted that we need to adopt what has been termed a *consilience* approach to understanding human development (Sroufe and Siegel, 2011). That is, we need to draw upon the evidence from a range of fields that reach the same conclusions and blend these insights to create a unity of knowledge and understanding about health and well-being in the early years. This includes dissolving traditional debates about nurture versus nature and recognising the *contingent and recursive* relationship between physiological, neurological and behavioural responses in order to optimise well-being (Siegel, 1999). This involves, for example, recognising the evidence that genes (*biology*) and experiences (*environment*) are indivisible, interrelated and interdependent with each affecting and enabling the expression and growth of

the other in order to create the *psychological mind* (McCrory et al., 2010). Feldman and Eidelman have affirmed this from their research which reflects the ‘dynamic interchange of biological dispositions and environmental provisions’ (2009: 194). In other words, the genetic structure we are born with transacts with a range of environmental stimuli and influences, which in turn interface to create the person that we are. The National Scientific Council on the Developing Child based at Harvard University in America has confirmed that

the biology of health explains how experiences and environmental influences ‘get under the skin’ and interact with genetic predispositions, which then result in various combinations of physiological adaptation and disruption that affect lifelong outcomes in learning, behavior, and both physical and mental well-being (NSCDC, 2010: 5).

In essence, they combine to create a *biopsychosocial* model of child development which correlates with the comprehensive *psychoneurobiological* model of health and well-being on which this book is based.

The psychoneurobiological model of brain, body and mind

The biopsychosocial model of human development discussed above emphasises the symbiotic relationship between health and well-being and the interrelationships between the various factors that affect young children’s health and well-being. The new discipline of *interpersonal neurobiology* is an example of consilience that embraces all branches of science to find a common, universal understanding of the mind and well-being (Siegel, 2012). In particular, evidence from the social, cognitive and affective neurosciences has led to an understanding that the brain is not simply an organ that enables us to think cognitively, but is a *biosocial* organ – in other words it requires external *social* interactions for growth *and* it needs to work closely with other *physiological* processes within the body (such as the stress response system), *and* it needs to pay particular heed to the role of *emotions* in order to optimise our health and well-being (Schore, 2001a; Porges, 2011; Immordino-Yang, 2011). This book therefore considers the interactions between different internal systems, such as the autonomic nervous system, alongside the

external ecological system (Damasio, 1998). It also provides illustrations of interventions that work in an *integrated* manner with the brain, the body and the surrounding context to support young children's health and well-being – in other words practical strategies based on *psychoneurobiological* processes coupled with an *interpersonal environmental* approach (Schoore, 2001a).

The bioecological systems model of human relationships

The *interpersonal environmental* approach links closely to Bronfenbrenner's (2005) *bioecological systems theory*. This idea essentially acknowledges that many factors interplay to affect children's development and these manifest themselves in the early years largely through the personal encounters a child has with the environment and with other humans, along with the relationships that subsequently may develop. Bronfenbrenner envisaged a child's development in terms of the *interpersonal relationships* that the child encounters within systems of different (and increasingly complex) *environments* or layers of influence. These *layers of influence* have been named the microsystem, the mesosystem, the macrosystem, the exosystem and the chronosystem. According to Bronfenbrenner, it is the quality of the reciprocal relationships within these various systems that determines the nature of children's experiences and have a direct bearing on shaping human development. The microsystem is the layer (or layers) closest to the child and with which and with whom the child has direct contact, such as the immediate family, the neighbourhood and early years settings. The mesosystem is less tangible to envisage since it is conceived in terms of the connections or relationships between the various structures within the microsystems. The mesosystem comprises, for example, the interrelationship between child and parent. The early years' professional is another example of the reciprocal relationships encountered by the child within the growing microsystems.

The exosystem is easier to identify as this refers to the larger social system within which the child might not directly participate but it still has the potential to have an impact upon the child. For example, a parent's work place is part of the exosystem which might affect the amount of time a child spends in childcare. The exosystem thus may act as an indirect

force shaping what relationships the child encounters in the microsystem. The macrosystem is less overt since it refers to cultural values, customs and laws that exist within or directly (and indirectly) dictate how the microsystems and exosystem operate. The macrosystem might affect the child through cultural norms or ideological blueprints that support a particular type of child-rearing practice or through legal frameworks such as a statutory early years curriculum. The macrosystem also incorporates broader issues such as socioeconomic status and ethnicity. The final layer is the chronosystem, which is another less tangible, but still influential, system and relates to events and transitions related to time that occur within the child's life. The chronosystem also entails wider sociohistorical circumstances such as changes in equal opportunities for women and the impact of these on young children's circumstances today via increased working prospects and consequent childcare issues.

The *bioecological systems* model focuses attention on an important theme in this book, namely that all the factors influencing a child are mediated by the child's *relationships* from conception to the start of school (and beyond). An important point to note, however, is that the child is viewed as an active participant within the relationships and environments, not a passive recipient. Indeed, Bronfenbrenner emphasised *mutual* interaction as integral to human development and noted how disruptions in one system had a knock-on effect on another. He considered that such influences were *bi-directional* which means that the relationships or structures within and between the different layers or environments are affected by and interact with each other. Moreover, Flear (2005) warns against only envisaging contextual factors as operating as social influences *on* the child. She draws on Rogoff's (2003) views that children's learning and development is not only constituted by the external socio-cultural context but they also *contribute to* and *participate in* that context. This book certainly reflects this notion of the child as a contributing and active agent in the creation of the circumstances that promote their health and well-being.

A relational model of health and well-being

The ecological systems model is now widely considered to be an effective model for supporting early childhood education and care, particularly for the most vulnerable (NSPCC, 2011). The NSPCC rightly identifies that 'at the heart of the model is the relationship

between the primary caregivers and the child' (2011: 20). Similarly, the World Health Organisation (WHO, 2014) lists stable, responsive, and nurturing care-giving and safe, supportive, environments as the two main ingredients for determining health and well-being, (a third cornerstone is appropriate nutrition). Despite recognising children's active agency in their own development, this book focuses its attention on the *adult's role* in supporting young children's growth and progress and articulates how relationships are a powerful inoculation for children in relation to their health and well-being. Indeed, a recent research project on well-being in the early years identified that children viewed social relationships as central to their happiness (Manning-Morton, 2014). This book will reiterate throughout how relationships and the *quality* of these relationships with important adults are a major determinant of child health and well-being (Rees et al., 2013). It draws particular attention to the power of the relationship between practitioner and child, but acknowledges the critical role of familial relationships and the impact of this on children's immediate and ongoing health and well-being (Entwistle, 2013). The premise of this book therefore rests on the interactive process between a child's brain, body and surrounding relationships creating what Siegel (2012) refers to as the *triangle of well-being*.

Structure of the book

The book begins by considering the role of the brain and body in health and well-being. Chapter 1 introduces the role and function of the brain in creating the adaptive behaviour necessary for health and well-being. It will set the scene for the complex interplay of environment and experience on brain function in relation to health and well-being, based on the biopsychosocial and psychoneurobiological models. Chapter 2 looks at the important features and processes that support health and well-being such as the connectome, plasticity, mirror neurones, pruning and tuning and vagal tone. Chapter 3 reviews the stress response system and highlights its significant role in affecting health and well-being. This is followed in Chapter 4 with a brief overview of the importance of nutrition and some key issues related to the nutritional dimensions of health and well-being.

The book then turns its attention to a focus on emotional health with Chapters 5 and 6 highlighting the significance of nurturing environments