

Contents

I Basic Principles: Error, Complexity, and Human Behavior

1	The Human Factors: Errors and Skills	3
1.1	Case Study	4
1.2	Human Factors in Healthcare: the Problem	4
1.3	Levels of Human Factors	5
1.4	"The Human Factors": in a Nutshell	13
2	The Challenge of Acute Healthcare	17
2.1	Case Study	18
2.2	Medical Emergencies and Critical Situations	18
2.3	Complexity and Human Behavior	19
2.4	The Skills, Rules, Knowledge (SRK) Framework	24
2.5	"The Challenge of Acute Medical Care": in a Nutshell	26
3	The Nature of Error	29
3.1	Case Study	30
3.2	What is an "Error"?	30
3.3	How Can Errors Be Classified?	32
3.4	The Dynamics of Accident Causation	36
3.5	"The Nature of Error": in a Nutshell	37
4	The Psychology of Human Action	39
4.1	Case Study	40
4.2	The "Psycho-logic" of Cognition, Emotions, and Motivation	40
4.3	Principles of Human Behavior	41
4.4	Motivation	44
4.5	Emotions	46
4.6	Thinking	49
4.7	Hazardous Attitudes	51
4.8	"Principles of Human Behavior": in a Nutshell	52

II Individual Factors of Behavior

5	Human Perception: the Way We See Things	57
5.1	Case Study	58
5.2	From Stimulus to Sensation: Sensory Physiology	58
5.3	"Gestalt" Theory and Meaningful Patterns: the Organization of Visual Perception	60
5.4	Recognition and Creating Meaning	63
5.5	Perception and Emotion	64

5.6	Tips for Clinical Practice	64
5.7	"Perception": in a Nutshell	65
6	Information Processing and Mental Models: World Views	67
6.1	Case Study	69
6.2	The Organization of Knowledge: Schemata and Mental Models	70
6.3	Are We Too Lazy to Think? Economy, Competence, and Safety	71
6.4	Wishful Thinking and Reality: Distortion of Information	72
6.5	Illusions: Inadequate Mental Models	73
6.6	What Is likely? The Handling of Uncertain Information	75
6.7	Tips for Clinical Practice	78
6.8	"Information Processing and Mental Models": in a Nutshell	79
7	Goals and Plans: Turning Points for Success	81
7.1	Case Study	82
7.2	Setting and Elaboration of Goals	83
7.3	Planning	87
7.4	Tips for Clinical Practice	90
7.5	"Plans and Goals": in a Nutshell	90
8	Attention: in the Focus of Consciousness	93
8.1	Case Study	94
8.2	The Control of Action: Attention, Vigilance, and Concentration	94
8.3	Open for News: Background Control and the Horizon of Expectations	96
8.4	Situation Awareness	98
8.5	Disturbances of Attention	98
8.6	Tips for Clinical Practice	101
8.7	"Attention": in a nutshell	101
9	Stress	103
9.1	Case Study	105
9.2	What is Stress?	105
9.3	Coping Mechanisms	112
9.4	Overwhelmed by Stress	113
9.5	Coping with Stress	114
9.6	The Role of Organizations in Reducing Stress	116
9.7	"Stress": in a Nutshell	116
10	Strategies for Action: Ways to Achieve Good Decisions	119
10.1	Case Study	120
10.2	Strategies for Good Actions	120
10.3	Strategies for Coping with Error	125
10.4	Tips for Clinical Practice	127
10.5	"Strategies for Action": in a Nutshell	127

III The Team

11	The Key to Success: Teamwork	131
11.1	Case Study	133

11.2	The Team	133
11.3	Team Performance: Input Factors	136
11.4	Team Process	139
11.5	The Result: Successful Team Performance	142
11.6	Strengths of Teams	143
11.7	Why Teamwork Can Go Wrong	143
11.8	Tips for Daily Practice	145
11.9	"Teamwork": in a Nutshell	145
12	Speech is Golden: Communication	149
12.1	Case Study	151
12.2	Organizing the Chaos: Functions of Communication	151
12.3	Understanding Communication	153
12.4	General Disturbance of Communication	158
12.5	Poor Communication in Critical Situations	160
12.6	Good Communication in Critical Situations	163
12.7	Communication After a Critical Situation	168
12.8	Tips for Daily Practice	169
12.9	"Communication": in a Nutshell	169
13	Leadership	173
13.1	Case Study	175
13.2	The Case for Leadership	175
13.3	Leadership Theories	177
13.4	A Conceptual Framework for Leadership	178
13.5	Leadership Tasks in a Critical Situation	180
13.6	The Process of Leading	181
13.7	Leadership Problems in Critical Situations	182
13.8	Situational Leadership	184
13.9	Tips for Daily Practice	184
13.10	"Leadership": in a Nutshell	184
IV	The Organization	
14	Organizations and Human Error	189
14.1	Case Study	190
14.2	Organizations as Systems: Different Perspectives	191
14.3	Organizations, Human Error, and Reliability	192
14.4	Organizational Sources of Error	195
14.5	"Organizations and Human Error": in a Nutshell	201
15	Reliable Acute Care Medicine	203
15.1	Case Study	205
15.2	Business Objective: Patient Safety	206
15.3	Avoidance of Error	208
15.4	Error Management	215
15.5	Imagine the Future: Safe Acute Medical Care	219
15.6	"Reliable Acute Care Medicine": in a Nutshell	224
	Subject Index	229

Crisis Management in Acute Care Settings
Human Factors and Team Psychology in a High Stakes
Environment

St.Pierre, M.; Hofinger, G.; Buerschaper, C.

2008, XII, 234 p. 47 illus., 37 illus. in color., Hardcover

ISBN: 978-3-540-71061-5