

Index

- 5-HTTLPR *see* serotonin transporter (5-HTT) gene polymorphisms
- acculturation 7–8
  - strategies 8–9
- acculturative stress 7–8
- adaptation 8
- African Americans
  - activity of cytochrome P450 enzymes 113
  - antipsychotic drug metabolism 113
  - approval of congestive heart failure medication 111–12
  - BiDil medication approval 111–12
  - biological factors affecting drug response 112–14
  - CYP2D6 enzyme activity 113
  - excessive dosing with antipsychotics 112
  - experience of side effects 39
  - lithium intolerance and side effects 113–14
  - participation in clinical trials 112, 114–15
  - population size 111
  - racial discrepancies in use of SGAs 100–1
  - rates of metabolism of medications 39
  - response to SSRIs 114
  - risk of extra-pyramidal side effects 113
  - risk of tardive dyskinesia with antipsychotics 112
  - side effects from antipsychotics 112
- Alzheimer’s disease, Huperzine-A trials 120
- amisulpride metabolism 49, 52
- antidepressant ethnic differences 44–6
  - Hispanic population responses 97–100
  - pharmacodynamic differences 45–6
  - pharmacokinetic differences 44–5
  - serotonin transporter gene polymorphisms 45–6
  - SSRI responses 45–6
- antidepressant genetic studies 62–8, 69–71
  - G-protein  $\beta 3$  subunit gene polymorphism 66–7
  - norepinephrine transporter (NET) gene polymorphisms 67–8
  - serotonin 6 (5-HT<sub>6</sub>) receptor gene polymorphisms 65–6
  - serotonin receptor 2A (5-HTR<sub>2A</sub>) gene polymorphisms 64–5
  - serotonin transporter gene polymorphisms 62–4
  - tryptophan hydroxylase (TPH) gene polymorphisms 64
- antidepressants
  - inpatient prescribing in East Asia 147
  - outpatient prescribing in Asian countries 140–1
- antiparkinson drugs, inpatient prescribing in East Asia 147, 148
- antipsychotic drugs
  - genetic studies 72–4, 75
  - inpatient prescribing in East Asia 145–7
  - outpatient prescribing in Asian countries 135–40
- antipsychotic drugs ethnic differences 47–53
  - amisulpride 49, 52
  - aripiprazole 49, 51–2
  - clozapine 48–50
  - drug–drug interactions 49, 52–3
  - first-generation antipsychotics 47–8
  - Hispanic population responses 100–3
  - metabolism in African Americans 113
  - olanzapine 49, 50–1
  - pharmacodynamic differences 53
  - pharmacokinetic differences 47–53
  - quetiapine 49, 52
  - risperidone 49, 51
  - second-generation antipsychotics 48–52
  - ziprasidone 49, 52
- anxiolytics
  - inpatient prescribing in East Asia 147, 148
  - outpatient prescribing in Asian countries 141
- aripiprazole
  - ethnic differences in metabolism 51–2
  - metabolizing enzymes 49, 51–2
- Asian-Americans, use of mental health services 11
- Asian countries
  - influences on outpatient prescribing 135, 142
  - outpatient prescribing of antidepressants 140–1
  - outpatient prescribing of antipsychotics 135–40
  - outpatient prescribing of anxiolytics 141
  - outpatient prescribing of benzodiazepines 141
  - outpatient prescribing of hypnotics 141
  - response to psychotropic medications 1
  - see also* East Asian inpatient prescribing

178 Index

- Asians
  - rates of metabolism of medications 39
  - response to haloperidol 28–9
  - risk of developing type 2 diabetes 51, 52
- assimilation (acculturation strategy) 8–9
- ataque de nervios*, among Puerto Ricans 13
- benzodiazepines
  - ethnic differences in response 46–7
  - outpatient prescribing in Asian countries 141
- biculturalism (acculturation strategy) 8–9
- BiDiI medication, approval for African Americans 111–12
- Cade, John, psychopharmacological effects of lithium 1
- caffeine, effects on clozapine metabolism 49
- carbamazepine, CYP1A2 induction 32
- category fallacy 12–13
- Caucasians, response to haloperidol 28–9
- China
  - cultural influences on psychopathology 12–13
  - neurasthenia diagnostic category 12–13
- Chinese Classification of Mental Disorders (CCMD-2R) 18
- Chinese populations
  - clinical responses to psychotropic medications 92–3
  - CYP1A2 activity variations 91
  - CYP2C19 gene polymorphisms 91
  - CYP2D6 gene polymorphisms 90–1
  - CYP3A4 enzyme inducers and inhibitors 91
  - drug–drug interactions 91
  - susceptibility gene studies 91–2
  - variations in drug metabolizing enzymes 90–2
  - variations in psychotropic drug responses 90–2
- Chinese psychopharmacotherapy
  - development of 87–90
  - development of clinical study methods 89–90
  - introduction of antidepressants 88
  - introduction of atypical antipsychotics 88
  - introduction of chlorpromazine 87–8
  - introduction of clozapine 88
  - introduction of mood stabilizers 88–9
  - introduction of typical antipsychotics 87–8
  - see also* traditional Chinese medicine (TCM)
- chlorpromazine, discovery of 1
- CIE-10 (ICD-10) criteria, use in IGDA 17–18, 19–20
- clinical phenotyping, importance in psychopharmacology 161
- clinical responses to psychotropic medications, Chinese populations 92–3
- clinical trials, ethnic minority participation 112, 114–15
- clozapine
  - effects of caffeine 49
  - effects of smoking 48–9
  - ethnic differences in dosing 50
  - ethnic differences in metabolism 48–50
  - gender differences in metabolism 48–9
  - genetic variation in metabolizing enzymes 48–50
  - metabolizing enzymes 48–50
- collectivism/individualism cultural dimension 9–10
- collectivist/sociocentric societies, attitudes to psychotropic drug therapy 124
- complementary medicine
  - co-existence with modern medicine 121–2
  - difficulty in carrying out RCTs 119, 120–1
  - difficulty of transition into modern medicine 120–1
  - important functions 121–2
  - indigenous medicine 118
  - interactions with Western medications 121
  - potential for harmful effects 121
  - process of development 118
  - therapeutic principles 121
  - typical applications 119
  - see also* traditional Chinese medicine (TCM)
- compliance, cultural influences on 126–9
- congestive heart failure medication, approval for African Americans 111–12
- cultural context
  - influence on psychopathology 5–6
  - influence on response to treatments 20–1
  - see also* transcultural research concepts
- Cultural Formulation in DSM-IV 15–17
- cultural influences
  - on attitudes to psychotropic drug therapy 123–6
  - on drug responses 33–4, 40
  - on expression of symptoms 11–13
  - on medication compliance 126–9
  - on outpatient prescribing in Asian countries 135, 142
  - on pharmacological response 27–9
  - on prevalence of psychopathology 10–11
  - on the patient–therapist relationship 28, 33–4, 128–9
  - on use of mental health services 11
- cultural psychological dimensions model 9–10
- cultural shock 7–8
- culture, definitions 6
- culture and psychopathology,
  - person-in-environment model 21–2
- culture-bound syndromes 13–15
  - ataque de nervios* 13
  - DSM-IV definition 13–14
  - DSM-IV list of syndromes 14
  - GLDP list of Latin American syndromes 14
  - research methodology issues 14–15
- CYP1A2 enzyme activity 29
  - effects of caffeine 49
  - effects of cultural change 31
  - effects of diet 31
  - effects of smoking 32, 48–9
  - gender differences 48–9
  - inducers 31
  - induction by carbamazepine 32
  - induction in the Hispanic population 105
  - variations in Chinese populations 91
- CYP2C9 gene polymorphisms 42
  - Mexican American subgroup 104

CYP2C19 gene polymorphisms 42, 77  
Chinese populations 91  
effects of 29, 30–1  
ethnic variation in 30–1  
Mexican American subgroup 104

CYP2D6 enzyme activity  
African Americans 113  
ethnic differences 113  
effects on therapeutic dose range for medications 29–30

CYP2D6 gene polymorphisms 42, 75–7  
Chinese populations 90–1  
effects of 29–30  
ethnic variation in 29–30  
Mexican American subgroup 103–4

CYP2E1 enzyme, induction by smoking 32

CYP3A subfamily 42

CYP3A4 enzyme activity 29  
effects of diet 31–2  
in Chinese populations 91  
inducers and inhibitors 31–2, 91  
induction in Hispanic population 105

CYP3A4 gene polymorphisms 42

cytochrome P450 enzymes  
activity in African Americans 113  
dietary factors affecting activity 39–40  
drug metabolism 29–31  
effects of diet 31–2  
effects of genetic polymorphisms 29–31  
effects of herbal treatments 39  
effects of multiple active gene copies 42  
effects of smoking 32  
ethnic variations 29–31, 41, 43–4  
gene polymorphisms 75–7  
inter-individual variations 41  
intermediate metabolizers (IMs) 41–2  
metabolic phenotypic groups 41–2  
normal or extensive metabolizers (EMs) 41–2  
pharmacogenetic differences 41–2  
poor metabolizers (PMs) . 41–2  
sites of drug metabolism 41  
ultrarapid metabolizers (UMs) 41–2  
*see also* CYP1A2; CYP2C9; CYP2C19; CYP2D6; CYP3A subfamily; CYP3A4

depression  
electric acupuncture treatment 119  
global disease burden 2–3

developing countries *see* economically disadvantaged countries

diabetes risk  
and second-generation antipsychotics 102  
Hispanic population 102  
in Asian populations 51, 52

diagnosis  
development of DSM-IV Cultural Formulation 15–17  
International Guidelines for Diagnostic Assessment (IGDA) 18–20  
Latin American Guide for Psychiatric Diagnosis (GLDP) 14–15  
person-in-environment model 21–2  
recent methodological developments 17–20  
use of explicit operative criteria 17–18  
use of multiaxial schemas 17–20

diet  
effects of drug-metabolizing enzymes 31–2, 39–40  
effects on cytochrome P450 enzyme activity 31–2, 39–40  
effects on drug response 39–40

Drug Attitude Inventory (DAI) 129

drug–diet interactions, Hispanic population 105

drug–drug interactions  
complementary medicine with Western medications 121  
ethnic differences 49, 52–3  
in Chinese populations 91  
TCM with Western medications 121

drug–herbal interactions, Hispanic population 104–5

drug-metabolizing enzymes  
effects of diet 31–2  
effects of genetic polymorphisms 29–31  
effects of smoking 32  
ethnic variations 29–31, 41, 43–4  
effects of multiple active gene copies 42  
inter-individual variations 41  
intermediate metabolizers (IMs) 41–2  
metabolic phenotypic groups 41–2  
normal or extensive metabolizers (EMs) 41–2  
pharmacogenetic differences 41–3  
poor metabolizers (PMs) . 41–2  
sites of drug metabolism 41  
ultrarapid metabolizers (UMs) 41–2  
uridine diphosphate-glucuronosyltransferases (UGTs) 42–3  
variations in Chinese populations 90–2  
*see also* cytochrome P450 enzymes

drug metabolism  
effects of CYP1A2 induction 32  
range of factors affecting 38–9

drug response  
cultural factors in treatment 33–4  
effects of dietary factors 39–40  
effects of herbal treatments 39  
influence of genetic factors 39  
non-biological factors in treatment 33–4  
non-genetic factors 39–40  
placebo effect 40  
sociocultural factors 40

drugs, life cycle 152

DSM-IV  
definition of culture-bound syndromes 13–14  
development of the Cultural Formulation 15–17  
list of culture-bound syndromes 14  
use of criteria in IGDA 17–18, 19–20

East Asian inpatient prescribing  
antidepressants 147  
antiparkinson drugs 147, 148  
antipsychotic drugs 145–7

- East Asian inpatient prescribing (*cont.*)
  - anxiolytics 147, 148
  - factors affecting 144, 146, 148, 149
  - hypnotics 147, 148
  - mood stabilizers 147, 148
  - poly-antipsychotics 147
  - REAP collaborative study methodology 144–5
- economically disadvantaged countries
  - comparison with poor in industrialized countries 151
  - differences between countries 151
  - effects of speed of development 151–2
  - emigration of consultant psychiatrists 153
  - gap between richest and poorest in the country 151
  - impact of life cycle of drugs 152
  - introducing drugs 152
  - lack of drug clinical trials reports 152
  - obstacles to pharmacotherapy for mental disorders 152–4
  - priorities and hopes for the future 154–6
  - removing drugs 152
  - stigma attached to mental illness 153–4
- electric acupuncture treatment of depressive disorders 119
- ethnic differences
  - aripiprazole metabolism 51–2
  - clozapine dosing 50
  - clozapine metabolism 48–50
  - CYP2D6 enzyme activity 113
  - cytochrome P450 enzymes 41
  - drug–drug interactions 49, 52–3
  - drug-metabolizing enzymes 29–31, 43–4
  - genetic factors in drug metabolism 39
  - in pharmacological response 21
  - olanzapine metabolism 50–1
  - pharmacological response 27–9
  - reasons for lack of research 1–2
  - response to antidepressants 44–6
  - response to antipsychotics 47–53
  - response to benzodiazepines 46–7
  - risperidone metabolism 51
  - serotonin transporter (5-HTT) gene
    - polymorphisms 32–3, 45–6
  - ziprasidone metabolism 52
- ethnic diversity, implications for pharmacotherapy 111–12
- ethnic minorities, participation in clinical trials 112, 114–15
- ethnic pharmacogenetics research
  - CYP2C19 gene polymorphisms 77
  - CYP2D6 gene polymorphisms 75–7
  - cytochrome P450 enzymes 75–7
  - G-protein  $\beta 3$  subunit gene polymorphism 66–7
  - genetic studies of antidepressants 62–8, 69–71
  - genetic studies of antipsychotic drugs 72–4, 75
  - genetic studies of mood stabilizers 68–72
  - norepinephrine transporter (NET) gene
    - polymorphisms 67–8
  - pharmacodynamic aspects 62–71, 73–4, 75
  - pharmacokinetic aspects 75–7
  - psychotropic drug metabolism 75–7
  - recognition of variability in responses 62
  - serotonin 6 (5-HT<sub>6</sub>) receptor gene
    - polymorphisms 65–6
  - serotonin receptor 2A (5-HTR<sub>2A</sub>) gene
    - polymorphisms 64–5
  - serotonin transporter gene polymorphisms 62–4
  - tryptophan hydroxylase (TPH) gene
    - polymorphisms 64
- ethnicity
  - and drug metabolism 38–9
  - definition 7
  - early studies of psychopathology 10–11
- ethno-psychopharmacology
  - definition and scope 2
  - origins of 1
- ethno-psychopharmacology research
  - development of an integrated model 172–4
  - dynamic and interactive nature of ethnocultural factors 172–4
  - factors affecting cross-ethnic variations 171–2
  - future directions 174–5
  - genotyping to predict drug response 170–2
  - implications of demographic shift 169–70
  - interaction of cultural and environmental factors 171–2
  - pharmacogenetics 170–2
  - population-specific clinical drug trials 169–70
  - reasons for importance 169–70
  - relevance in multicultural societies 169–70
  - explicit operative criteria for diagnosis 17–18
- FMO3 (flavin-containing monooxygenase), role in olanzapine metabolism 50
- G-protein  $\beta 3$  subunit gene polymorphism 66–7
- gender differences
  - clozapine metabolism 48–9
  - CYP1A2 activity 48–9
- gene–environment interactions in drug response 28–9
- genetic factors in pharmacological response 21
  - see also* pharmacogenetics
- genetic polymorphism *see specific genes*
- genetic variation and drug metabolism 38–9
- GLDP (Latin American Guide for Psychiatric Diagnosis) 14–15
- Global Burden of Disease Study (WHO) 2–3
- haloperidol, cross-ethnic response variations 28–9
- herbal teas, use in the Hispanic population 104
- herbal treatments
  - effects on cytochrome P450 enzymes 39
  - effects on drug response 39
  - see also* complementary medicine; traditional Chinese medicine (TCM)
- Hispanic population
  - CYP1A2 induction 105
  - CYP3A4 induction 105
  - diabetes risk and SGAs 102
  - drug–diet interactions 105

- drug-herbal interactions 104–5
- efficacy and safety of antipsychotics 101–2
- metabolic syndrome and SGAs 102–3
- methodological problems with studies 97, 105–7
- pharmacogenetics of Mexican American subgroup 103–4
- racial discrepancies in use of SGAs 100–1
- responses to antidepressants 97–100
- responses to antipsychotics 100–3
- responses to selective serotonin and norepinephrine re-uptake inhibitors 100
- responses to selective serotonin re-uptake inhibitors (SSRIs) 98–9
- responses to tricyclic antidepressants 97–8
- size of population in the US 97, 111
- use of herbal teas 104
- use of Kava Kava (*Piper methysticum*) 104–5
- use of St John's Wort (*Hypericum perforatum*) 104–5
- 5-HTTLPR *see* serotonin transporter (5-HTT) gene polymorphisms
- Huperzine-A trials for Alzheimer's disease 120
- Hutterites, cultural influences on psychopathology 11–12
- hypnotics
  - inpatient prescribing in East Asia 147, 148
  - outpatient prescribing in Asian countries 141
- ICD-10 (CIE-10) criteria, use in IGDA 17–18, 19–20
- immigration theories 7–8
- indigenous medicine, status of 118
  - see also* complementary medicine; traditional Chinese medicine (TCM)
- individualism/collectivism cultural dimension 9–10
- individualized medicine, clinical application of pharmacogenomics 162
- inpatient prescribing in East Asia
  - antidepressants 147
  - antiparkinson drugs 147, 148
  - antipsychotic drugs 145–7
  - anxiolytics 147, 148
  - factors affecting 144, 146, 148, 149
  - hypnotics 147, 148
  - mood stabilizers 147, 148
  - poly-antipsychotics 147
  - REAP collaborative study methodology 144–5
- integration (acculturation strategy) 8–9
- International Guidelines for Diagnostic Assessment (IGDA) 18–20
- Kava Kava (*Piper methysticum*), use in the Hispanic population 104–5
- Latin American Guide for Psychiatric Diagnosis (GLDP) 14–15
- life cycle of drugs 152
- lithium
  - discovery of effects in bipolar disorder 1
  - ethnic differences in response 1
  - lack of tolerability in African Americans 113–14
  - marginalization (acculturation strategy) 8–9
  - Medication Adherence Rating Scale 129
  - Medication Attitude Scale (MAS) 129–31
  - medication compliance, cultural influences on 126–9
  - mental disorders, interpretation in traditional Chinese medicine 119
  - mental health services
    - cultural influences on usage 11
    - factors affecting usage 9–10
  - metabolic syndrome
    - and second-generation antipsychotics 102–3
    - Hispanic population risk 102–3
  - Mexican American subgroup
    - CYP2C9 gene polymorphisms 104
    - CYP2C19 gene polymorphisms 104
    - CYP2D6 gene polymorphisms 103–4
    - pharmacogenetics 103–4
  - mood stabilizers
    - genetic studies 68–72
    - inpatient prescribing in East Asia 147, 148
  - multiaxial schemas for diagnosis 17–20
  - neurasthenia in China 12–13
  - non-conflictive psychological acculturation 7–8
  - norepinephrine transporter (NET) gene polymorphisms 67–8
  - olanzapine
    - effects of smoking 50
    - ethnic differences in metabolism 50–1
    - metabolizing enzymes 49, 50–1
  - outpatient prescribing in Asian countries
    - antidepressants 140–1
    - antipsychotics 135–40
    - anxiolytics 141
    - benzodiazepines 141
    - cultural and systemic determinants 135, 142
    - hypnotics prescribing practices 141
  - patient-therapist relationship
    - influence of cultural factors 28, 33–4, 128–9
    - influence on pharmacotherapeutic response 28
  - person-in-environment model of diagnosis 21–2
  - Personal Evaluation of Transitions in Treatment 129
  - pharmaco-economics, application to psychopharmacology 164
  - pharmacogenetic differences in drug metabolism 40–4
    - cytochrome P450 enzymes 41–2
    - drug-metabolizing enzymes 41–3
    - ethnic differences 43–4
  - pharmacogenetics of ethnic populations
    - CYP2C19 gene polymorphisms 77
    - CYP2D6 gene polymorphisms 75–7
    - cytochrome P450 enzymes 75–7
    - G-protein  $\beta 3$  subunit gene polymorphism 66–7
    - genetic studies of antidepressants 62–8, 69–71
    - genetic studies of antipsychotic drugs 72–4, 75
    - genetic studies of mood stabilizers 68–72
    - Mexican American subgroup 103–4

pharmacogenetics of ethnic populations (*cont.*)  
  norepinephrine transporter (NET) gene  
    polymorphisms 67–8  
  pharmacodynamic aspects 62–71, 73–4, 75  
  pharmacokinetic aspects 75–7  
  psychotropic drug metabolism 75–7  
  recognition of variability in responses 62  
  serotonin 6 (5-HT<sub>6</sub>) receptor gene  
    polymorphisms 65–6  
  serotonin receptor 2A (5-HTR<sub>2A</sub>) gene  
    polymorphisms 64–5  
  serotonin transporter gene polymorphisms 62–4  
  tryptophan hydroxylase (TPH) gene  
    polymorphisms 64  
pharmacogenomics, and individualized medicine 162  
pharmacological response  
  and the patient–therapist relationship 28  
  ethnic and cultural influences 27–8  
  ethnic differences 21  
  ethnic variations in drug metabolism 29–31  
  factors affecting 27–9  
  genetic factors 21  
placebo effect 40, 124–5  
poly-antipsychotics, inpatient prescribing in East Asia 147  
poor countries *see* economically disadvantaged countries  
psychiatric medications  
  factors affecting response 27–8  
  testing on ethnically narrow groups 27  
psychological acculturation 7–8  
psychological adaptation 8  
psychopathology  
  cultural influences on prevalence 10–11  
  influence of cultural context 5–6  
  person-in-environment model of diagnosis 21–2  
  prevalence of 2–3  
psychopharmacology  
  advances in psychoneuroimmunology 160  
  application of pharmacoeconomics 164  
  beginnings of 1  
  clinical application of pharmacogenomics 162  
  gaps between research and clinical practice 159, 161–2  
  gaps in cross-cultural evidence 159, 162  
  implications of neurogenesis in the adult brain 160–1  
  importance of clinical phenotyping 161  
  individualized medicine 162  
  maximizing effectiveness in clinical practice 161–2  
  new drug discovery approaches 160–1  
  proportion of non- and partial responders 158–9  
  search for new therapeutic targets 161  
psychotropic drug metabolism  
  cytochrome P450 enzyme polymorphisms 75–7  
  effects of CYP1A2 induction 32  
  effects of smoking 32  
psychotropic drug responses  
  and serotonin transporter (5-HTT) gene  
    polymorphism 32–3  
  placebo response 124–5  
  variations in Chinese populations 90–2  
psychotropic drug therapy  
  attitude rating instruments 129–31  
  cultural differences in concerns about side effects 125–6  
  cultural differences in expectations 126  
  cultural influences on compliance 126–9  
  determinants of attitudes towards 123–6  
  effects of negative cultural context 126  
  influence of culture on attitudes to 123–6  
  sociocultural influences on use 123–6  
quetiapine metabolism 49, 52  
race, definition 6–7  
racial discrepancies in use of SGAs 100–1  
racial populations, intra-population variability 38–9  
rating instruments  
  attitudes towards psychotropic drug therapy 129–31  
  Drug Attitude Inventory (DAI) 129  
  Medication Adherence Rating Scale 129  
  Medication Attitude Scale (MAS) 129–31  
  Personal Evaluation of Transitions in Treatment 129  
risperidone  
  episode status and dosage 51  
  ethnic differences in metabolism 51  
  metabolizing enzymes 49, 51  
schizophrenia  
  1-Stepholidine trials 120  
  cross-ethnic variations in response to haloperidol 28–9  
second-generation antipsychotics (SGAs)  
  diabetes risk 102  
  link with metabolic syndrome 102–3  
  racial discrepancies in use 100–1  
selective serotonin and norepinephrine re-uptake inhibitors, Hispanic population responses 100  
selective serotonin re-uptake inhibitors (SSRIs)  
  Hispanic population responses 98–9  
  responses 45–6  
separation (acculturation strategy) 8–9  
serotonin 6 (5-HT<sub>6</sub>) receptor gene polymorphisms 65–6  
serotonin receptor 2A (5-HTR<sub>2A</sub>) gene  
  polymorphisms 64–5  
serotonin transporter (5-HTT) gene  
  polymorphisms 62–4  
  ethnic variation 32–3, 45–6  
SGAs *see* second-generation antipsychotics  
side effects, cultural differences in concerns about 125–6  
smoking  
  among psychiatric patients 32  
  effects on clozapine metabolism 48–9

183 Index

- effects on CYP1A2 activity 32, 48–9
- effects on cytochrome P450 enzymes 32
- effects on drug-metabolizing enzymes 32
- effects on olanzapine metabolism 50
- effects on pharmacokinetics of medications 32
- induction of CYP2E1 enzyme 32
- sociocentric/collectivist societies, attitudes to
  - psychotropic drug therapy 124
- sociocultural adaptation 8
- SSRIs (selective serotonin re-uptake inhibitors)
  - Hispanic population responses 98–9
  - responses 45–6
- St John's Wort (*Hypericum perforatum*) 39
  - use in the Hispanic population 104–5
- 1-Stepholidine trials for schizophrenia 120
- stigma attached to mental illness 153–4
- susceptibility gene studies, Chinese populations 91–2
- symptoms, cultural influences on expression 11–13
- therapeutic alliance *see* patient–therapist relationship
- therapeutic response
  - cultural influences on 20–1
  - ethnic differences 21
- Third Cuban Glossary of Psychiatry (GC-3) 18
- traditional Chinese medicine (TCM)
  - co-existence with modern medicine 121–2
  - diagnostic system 118
  - difficulty in carrying out RCTs 119, 120–1
  - difficulty of transition into modern medicine 120–1
  - electric acupuncture treatment of depressive disorders 119
  - Huperzine-A trials for Alzheimer's disease 120
  - important functions 121–2
  - influence of concepts and practices 125
  - interactions with Western medications 121
  - interpretation of mental disorders 119
  - potential for harmful effects 121
  - process of development 118
- 1-Stepholidine trials for schizophrenia 120
- therapies for mental disorders 87
- therapeutic principles 121
- typical applications 119
- yin and yang theory 118
- transcultural research concepts 6–10
  - acculturation 7–8
  - acculturation strategies 8–9
  - adaptation 8
  - beyond racial and ethnic categories 9–10
  - culture 6
  - ethnicity 7
  - immigration theories 7–8
  - psychological dimensions model 9–10
  - race 6–7
    - relation between the two cultures 8–10
- tricyclic antidepressants, Hispanic population responses 97–8
- tryptophan hydroxylase (TPH) gene
  - polymorphisms 64
- type 2 diabetes *see* diabetes risk
- UGT1A4 activity 42–3
  - and clozapine metabolism 49–50
  - and olanzapine metabolism 50
- UGTs (uridine diphosphate-glucuronosyltransferases) 42–3
- US
  - changing ethnic diversity 111
  - size of African American population 111
  - size of Hispanic population 97, 111
- ziprasidone
  - ethnic differences in metabolism 52
  - metabolizing enzymes 49, 52