## Natural Language Definition of OCD Concepts and Description Logic

$OCD \sqsubseteq OCRDs$ .
$OCD \equiv Obsession \sqcup Compulsion.$
NL: OCD is classified within Obsessive-Compulsive and Related Disorders
(OCRDs) and is defined as either an obsession, a compulsion, or both.

	OCRDs	☐ Cognitive disorder.
	Body Dysmorphic Disorder	$\sqsubseteq$ OCRDs.
	Hoarding Disorder	$\sqsubseteq$ OCRDs.
	Trichotillomania	$\sqsubseteq$ OCRDs.
	Skin Picking Disorder	$\sqsubseteq$ OCRDs.
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Obsession $\equiv$ Intrusive thought $\sqcup$ Intrusive image $\sqcup$ Intrusive urge) $\sqcap$ ( $\exists$ hasAssociatedAp-
praisal.ThoughtAppraisal).
NL: An obsession is characterized by an intrusive thought, image, or urge causing distress,
often emphasized by the individual's significant appraisal.
Aggressive obsession $\sqsubseteq$ Obsession.
$\equiv$ Aggressive intrusive thought $\sqcup$ Aggressive intrusive image $\sqcup$ Aggressive obsessive urge.
NL: An aggressive obsession in OCD can manifest as an aggressive intrusive thought, im-
age, or urge, characterized by the nature of aggression.
Compulsion $\equiv$ (Behavior $\sqcup$ Activity) $\sqcap$ ( $\exists$ hasAssociateEmotion.Emotion) $\sqcap$
$(\exists  has Associate Impairment. Functional Impairment)  \  \sqcap  (\exists  has Associated Dura-$
tion.SeverityDurationLevel).
NL: Compulsions in OCD are behaviors or mental acts performed in response to obses-
sions, characterized by distress, functional impairment, and significant time consumption,
including both physical actions like checking doors and mental acts like praying.

Aggressive Obsession	$\sqsubseteq$ Obsession. $\equiv$ Aggressive intrusive thought $\sqcup$
	Aggressive intrusive image   □ Aggressive obsessive
	urge.
Hoarding Obsession	$\sqsubseteq$ Obsession. $\equiv$ Hoarding obsessive thought $\sqcup$
	Hoarding obsessive image $\sqcup$ Hoarding obsessive
	urge.
Contamination Obsession	$\sqsubseteq$ Obsession. $\equiv$ Contamination obsessive thought
	☐ Contamination obsessive image ☐ Contamination
	obsessive urge.
Sexual Obsession	$\sqsubseteq$ Obsession. $\equiv$ Sexual obsessive thought $\sqcup$ Sexual
	obsessive image ⊔ Sexual obsessive urge.

Symmetry Obsession	$\sqsubseteq$ Obsession. $\equiv$ Symmetry obsessive thought $\sqcup$
	Symmetry obsessive image $\sqcup$ Symmetry obsessive
	urge.
Somatic Obsession	$\sqsubseteq$ Obsession. $\equiv$ Somatic obsessive thought $\sqcup$ So-
	matic obsessive image ⊔ Somatic obsessive urge.
Religious Obsession	$\sqsubseteq$ Obsession. $\equiv$ Religious obsessive thought $\sqcup$ Re-
	ligious obsessive image ⊔ Religious obsessive urge.
Doubt Obsession	$\sqsubseteq$ Obsession. $\equiv$ Doubt obsessive thought $\sqcup$ Doubt
	obsessive image ⊔ Doubt obsessive urge.

Intrusive thoughts $\equiv$ ( Thoughts $\sqcap$ ( $\exists$ hasAssociateEmotion.Emotion) $\sqcap$ ( $\exists$ hasAssociateIm-
$pairment.Functional Impairment) \sqcap (\exists \ has Associated Duration. Severity Duration Level))$
NL: Intrusive thoughts in OCD are obsessions accompanied by negative emotions such as
distress, leading to functional impairment and defined by their duration and severity.
Intrusive Images ≡ Mental Image □ Intrusive Thought
NL: An intrusive mental image, as a form of obsession in OCD, is an intrusive thought that
manifests as a vivid visual image, causing distress.
Intrusive $urge \sqsubseteq Urge$
Intrusive urge $\equiv$ (urge $\sqcap$ ( $\exists$ hasAssociateEmotion.Emotion) $\sqcap$ ( $\exists$ hasAssociateImpair-
$ment.Functional Impairment) \sqcap (\exists \ has Associated Duration. Severity Duration Level))$
NL: An intrusive urge in OCD is a compelling desire to perform distressing behaviors, sig-
nificantly impacting daily life and characterized by its emotional association, functional
impairment, and duration.

Morbid Thoughts	☐ Thoughts
Intrusive Thoughts	☐ Thoughts
Persistent Thoughts	☐ Thoughts
Recurrent Thoughts	□ Thoughts
Aggressive Thoughts	☐ Morbid Thoughts
Sexual Thoughts	☐ Morbid Thoughts
Somatic Thoughts	☐ Morbid Thoughts
Symmetry Thoughts	☐ Morbid Thoughts
Religious Thoughts	☐ Morbid Thoughts
Hoarding Thoughts	☐ Morbid Thoughts
Contamination Thoughts	☐ Morbid Thoughts
Doubt Thoughts	☐ Morbid Thoughts
Aggressive Intrusive Thought	≡ Aggressive Thought □ Intrusive Thought
Sexual Intrusive Thought	$\equiv$ Sexual Thought $\sqcap$ Intrusive Thought
Contamination Intrusive	$\equiv$ Contamination Thought $\sqcap$ Intrusive Thought
Thought	
Somatic Intrusive Thought	≡ Somatic Thought □ Intrusive Thought
Symmetry Intrusive Thought	≡ Symmetry Thought □ Intrusive Thought
Doubt Intrusive Thought	$\equiv$ Doubt Thought $\sqcap$ Intrusive Thought
Religious Intrusive Thought	$\equiv$ Religious Thought $\sqcap$ Intrusive Thought
Hoarding Intrusive Thought	$\equiv$ Hoarding Thought $\sqcap$ Intrusive Thought
Intrusive Mental images	≡ Mental Image □ Intrusive Thought
Aggressive Mental images	☐ Mental images
Sexual Mental images	☐ Mental images
Somatic Mental images	
Symmetry Mental images	☐ Mental images

Religious Mental images	☐ Mental images
Hoarding Mental images	☐ Mental images
Contamination Mental images	☐ Mental images
Doubt Mental images	☐ Mental images
Aggressive Intrusive Image	$\equiv$ Mental Image $\sqcap$ Intrusive Thought
Sexual Intrusive Image	$\equiv$ Mental Image $\sqcap$ Intrusive Thought
Contamination Intrusive Image	$\equiv$ Mental Image $\sqcap$ Intrusive Thought
Somatic Intrusive Image	$\equiv$ Mental Image $\sqcap$ Intrusive Thought
Symmetry Intrusive Image	$\equiv$ Mental Image $\sqcap$ Intrusive Thought
Doubt Intrusive Image	$\equiv$ Mental Image $\sqcap$ Intrusive Thought
Religious Intrusive Image	$\equiv$ Mental Image $\sqcap$ Intrusive Thought
Hoarding Intrusive Image	$\equiv$ Mental Image $\sqcap$ Intrusive Thought
Persistent Mental Image	☐ Mental Images
Recurrent Mental Image	☐ Mental Images
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Aggressive intrusive urge	$\equiv$ Feeling of Aggressive urge $\sqcap$ Intrusive urge
Sexual intrusive urge	$\equiv$ feeling of Sexual urge $\sqcap$ Intrusive urge
Contamination intrusive urge	≡ feeling of Contamination urge   Intrusive urge
Somatic intrusive urge	$\equiv$ feeling of Somatic urge $\sqcap$ Intrusive urge
Symmetry intrusive urge	$\equiv$ feeling of Symmetry urge $\sqcap$ Intrusive urge
Doubt intrusive urge	$\equiv$ feeling of Doubt urge $\sqcap$ Intrusive urge
Religious intrusive urge	$\equiv$ feeling of Religious urge $\sqcap$ Intrusive urge
Hoarding intrusive urge	$\equiv$ feeling of Hoarding urge $\sqcap$ Intrusive urge
Persistent urge	⊑urge
Recurrent urge	⊑urge
Feeling of aggressive urge	⊑urge
Feeling of contamination urge	⊑urge
Feeling of sexual urge	⊑urge
Feeling of somatic urge	⊑urge
Feeling of symmetry urge	⊑urge
Feeling of doubt urge	⊑urge
Feeling of hoarding urge	⊑urge
Feeling of religious urge	⊑urge

Compulsive Behavior	⊑ Behavior.
Avoidance behavior	⊑ Behavior
Reassurance behavior	⊑ behavior
Physical compulsive behavior	$\equiv$ Physical activity $\sqcap$ compulsion
Physical activity	☐ Activity
Repeating rituals	≡ Compulsive behavior
Compulsive checking	≡ Compulsive behavior
Compulsive cleaning	≡ Compulsive behavior
Compulsive hoarding	≡ Compulsive behavior
Compulsive washing	≡ Compulsive behavior
Compulsive cleaning	≡ Compulsive behavior
Compulsive counting	≡ Compulsive behavior
Compulsive ordering	≡ Compulsive behavior
Mental compulsive behavior	$\equiv$ Mental act $\sqcap$ Compulsion
Mental act	☐ Activity
Mental praying	⊑ Mental act
Mental counting	⊑ Mental act
Compulsive checking	$\equiv$ Checking $\sqcap$ Compulsion
Checking	☐ Physical activity
Cleaning	☐ Physical activity
Hoarding	☐ Physical activity
Washing	☐ Physical activity
Counting	☐ Physical activity
Ordering	☐ Physical activity

Environmental Factor	☐ Risk factor.
Social factor	☐ Risk factor
Suicide factor	☐ Risk factor
Genetic factor	☐ Risk factor
Temperamental factor	☐ Risk factor
Thought Appraisal	☐ Appraisal process
Inflated responsibility	☐ Thought appraisal
Overestimation of threat	☐ Thought appraisal
Perfectionism	☐ Thought appraisal
Over-importance	☐ Thought appraisal
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Intolerance of uncertainty	☐ Thought appraisal
Intolerance of uncertainty Assessment criteria	☐ Thought appraisal☐ diagnostic process
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Assessment criteria	⊑ diagnostic process
Assessment criteria Severity control level	☐ diagnostic process ☐ Assessment criterion
Assessment criteria Severity control level Severity duration level	☐ diagnostic process ☐ Assessment criterion ☐ Assessment criterion
Assessment criteria Severity control level Severity duration level Severity resistance level	☐ diagnostic process ☐ Assessment criterion ☐ Assessment criterion ☐ Assessment criterion
Assessment criteria Severity control level Severity duration level Severity resistance level Severity distress level	☐ diagnostic process ☐ Assessment criterion
Assessment criteria Severity control level Severity duration level Severity resistance level Severity distress level Severity interference level	☐ diagnostic process ☐ Assessment criterion
Assessment criteria Severity control level Severity duration level Severity resistance level Severity distress level Severity interference level Normal routine impairment	☐ diagnostic process ☐ Assessment criterion ☐ Functional impairment